



CITY OF SAN ANTONIO

CAPITAL IMPROVEMENTS MANAGEMENT SERVICES (CIMS DEPARTMENT)

PROJECT: SEELING CHANNEL IMPROVEMENTS - PHASE I

ADDENDUM NO. 4

DATE: August 29, 2012

This addendum shall be included in and be considered part of the plans and specifications for the above named project. The contractor shall be required to sign an acknowledgment of the receipt of this addendum at the time he receives it.

Addendum No.4 is issued to add provide answers to the written questions received, and to update the Plans, Specifications and Bid Proposal. The attached documents should be used in place of the documents of the same title found within the plans and Project Manual.

1. Pre-Bid Q&A Session Questions and Answers
 - a. A copy of the Questions and Answers from the Pre-Bid Q&A held on August 21, 2012 is included in this addendum.
2. 010 Invitation for Bids (IFB) and Contract Signature Page
 - a. After August 24, 2012, the Plans, Specifications and Special Conditions may be purchased at AECOM, 112 E. Pecan, Suite 400, San Antonio, TX 78205.
3. 025 Unit Pricing Form

Revisions made to the Unit Pricing Form 025 have been listed below calling out items modified.

 - a) Roadway and Drainage Base Bid
 - i) Items Updated
 - COSA 554.1 – Erosion Control Matting (Material and Details Updated)
 - TxDOT 420 2029 – Class S Concrete Slab (Quantity Updated)
 - TxDOT 420 2033 – Class S Concrete Approach Slab (Quantity Updated)
 - TxDOT 420 2034 – Class S Concrete Bridge Sidewalk (Quantity Updated)
 - TxDOT 420 – Class C Concrete Monument (Quantity Updated)
 - TxDOT 428 2001 – Concrete Surface Treatment Class I (Quantity Updated)
 - b) SAWS Sewer Main Base Bid
 - i) Items Removed
 - 850 – Sanitary Sewer Structure – 60”
 - ii) Items Revised
 - 850 – Sanitary Sewer Structure – 72” (Quantity Updated)
 - c) Landscape Base Bid
 - i) Items Updated
 - PB. 7 – Entry Column Complete Pedestrian Bridge (Sheet Reference Added in S.P. No Column)
 - VB. 1 – Limestone Stone Veneer (Desc. Code Updated)
 - VB.8 – Entry Column Complete Monument Walls (Sheet Reference Added in S.P. No Column)

VB.11 – Entry Landscape Beds with Main Entry Plants (Sheet Reference Added in S.P. No Column)

LM.11– Existing Tree Protection (Units Updated)

- d) This form has been updated to add the amount of Landscape – Electrical Base Bid section into the summary section.
4. 040 Bid Form
- a. To clarify the maximum total offer for Item SP.1 Diversion and Care of Water, Bid Form 040 is amended to include “k” to Section 3, to read as follows:
- (k) The total offer for Item SP.1 Diversion and Care of Water shall not exceed seven percent (7%) of the total project offer. The 7% allowed for the Diversion and Care of Water will be calculated based upon the total of all offer components. An offer containing a total for the Diversion and Care of Water in excess of seven (7%) percent may be considered unbalanced and may be rejected.
5. Special Specification 3 – Prefabricated Pedestrian Bridge
- a. 1.2 - Pre-approved Manufacturers is modified to add the following: *(Please note selected manufacturer will be required to meet all conditions as outlined in the specification provided including the warranty terms)*
- Big R Bridge
P.O. Box 1290
Greeley, CO 80632-1290
1-800-234-0734
 - EXCEL Bridge Manufacturing Co.
12001 Shoemaker Ave.
Santa Fe Springs, CA 90670
1-800-548-0054
6. Typical Channel Sections
- a. Remove plan sheets 20, 21, and 22. Replace with the revised sheets attached to this addendum.
7. General Notes Sheet
- a. Remove plan sheet 24 and replace with the revised sheet attached to this addendum.
8. Summary of Bid Items
- a. Remove plan sheets 26, 27, and 27a. Replace with the revised sheets attached to this addendum.
9. Erosion Control Products Standards Details & Notes
- a. Remove plan sheet 173 and replace with the revised sheet attached to this addendum.
10. S. Josephine-Tobin Dr Bridge
- a. Remove the following plan sheets and replace with the revised and attached sheets:
- 224A Quantity Summary S. Josephine-Tobin Dr.
 - 232 Slab Layout S. Josephine-Tobin Dr.
11. Wilson Blvd. Bridge
- a. Remove the following plan sheets and replace with the revised and attached sheets:
- 239 Bridge Layout Wilson Blvd.
 - 240 Summary of Quantities Wilson Blvd.
 - 243 Prestressed Concrete Slab Beam Spans (TY SB12) Wilson Blvd.
 - 244 Bridge Approach Slab Asphaltic Concrete Pavement Wilson Blvd.
12. Woodlawn Ave. Bridge
- a. Remove the following plan sheets and replace with the revised and attached sheets:
- 245 Bridge Layout Woodlawn Ave.
 - 246 Bridge Construction Sequence Woodlawn Ave.
 - 247 Summary of Quantities Woodlawn Ave.
 - 248 Abutment #1 & #3 Details Woodlawn Ave.
 - 249 Interior Bent #2 Details Woodlawn Ave.
 - 250 Prestressed Concrete Slab Beam Spans (TY SB15) Woodlawn Ave.

13. Landscape Details/ Woodlawn Lake Park Details
 - a. Remove the following plan sheets and replace with the revised and attached sheets:
 - 405 (LS2.4) Sitework Details
 - 421 (LP 2.1) Planting List and Details
14. SAWS Sanitary Sewer Replacement Details
 - a. Remove the following plan sheets and replace with the revised and attached sheets:
 - Summary Quantity Sheet- Sanitary Sewer (5 of 15)
 - Sanitary Sewer Plan and Profile Line "A" Sta 9+88 to Sta 13+50 (6 of 15)
 - Sanitary Sewer Plan and Profile Line "A" Sta 17+50 to Sta 20+53 (8 of 15)
15. Addendum No. 4 Acknowledgement Form
 - a. A copy of the Addendum No. 4 Acknowledgement Form is included. Please complete and sign the form and include with the bid package to acknowledge receipt of Addendum No. 4.

ATTACHMENTS

- Pre-Bid Q&A Session Questions and Answers
- Revised 025 Bid Form- Unit Pricing Form
- Construction Plan Sheets:
 - 20, 21, 22 Typical Channel Sections
 - 24 General Notes Sheet
 - 26, 27, and 27a Summary of Bid Items
 - 173 Erosion Control Products Standards Details & Notes
 - 224A Quantity Summary S. Josephine-Tobin Dr.
 - 232 Slab Layout S. Josephine-Tobin Dr.
 - 239 Bridge Layout Wilson Blvd.
 - 240 Summary of Quantities Wilson Blvd.
 - 243 Prestressed Concrete Slab Beam Spans (TY SB12) Wilson Blvd.
 - 244 Bridge Approach Slab Asphaltic Concrete Pavement Wilson Blvd.
 - 245 Bridge Layout Woodlawn Ave.
 - 246 Bridge Construction Sequence Woodlawn Ave.
 - 247 Summary of Quantities Woodlawn Ave.
 - 248 Abutment #1 & #3 Details Woodlawn Ave.
 - 249 Interior Bent #2 Details Woodlawn Ave.
 - 250 Prestressed Concrete Slab Beam Spans (TY SB15) Woodlawn Ave.
 - 405 (LS2.4) Sitework Details
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 - Summary Quantity Sheet- Sanitary Sewer (5 of 15)
 - Sanitary Sewer Plan and Profile Line "A" Sta 9+88 to Sta 13+50 (6 of 15)
 - Sanitary Sewer Plan and Profile Line "A" Sta 17+50 to Sta 20+53 (8 of 15)
- Addendum Acknowledgement Form



Stephanie D Blew

Stephanie D. Blew, PE

8/29/2012

Date

END OF ADDENDUM NO. 4

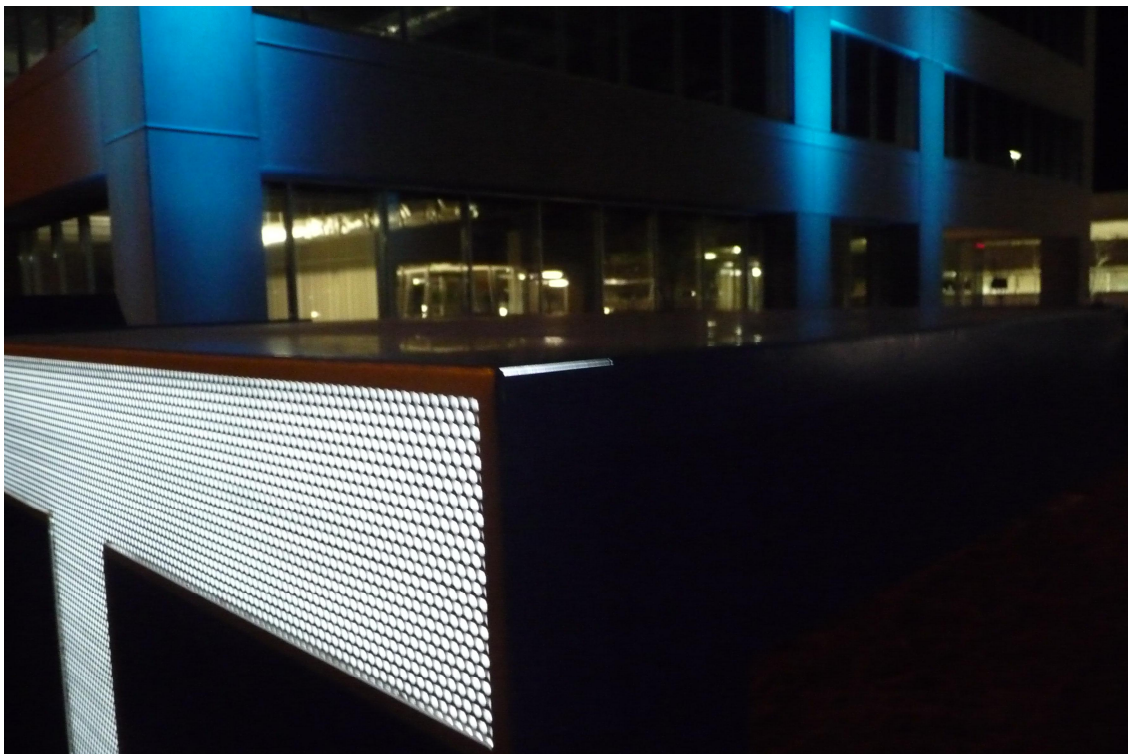
Addendum No. 4

Questions & Answers

- Q1. *Can we get a detail of what SAWS is asking for on the 60", 72", and 90" manhole structures?*
A1. Addendum 1 revised bid item 850 – Sanitary Sewer Structure from 90" to 96". SAWS Standard Specification for Construction Item No. 850 includes a detail for a Sanitary Sewer Structure for 72" and 96". Addendum 4 revises the SAWS Plans to remove the 60" sanitary sewer structures and replace them with 72" sanitary sewer structures.
- Q2. *Can you define how "low bidder" will be determined?*
A2. Base bids will be considered first to make sure sufficient funding is available. Additive alternatives will be considered in numerical order, including as many as funding will allow. New landscape and electrical items were divided into base bid and additive alternative bid items.
- Q3. *What is the difference between the pay items on sheet 27a "PB.11" and "PB.12"? These two pay items do not correspond with the COSA form 025 "PB.11 Pedestrian Bridge Steel Tube" and "PB.12 Pedestrian Bridge Steel Frame".*
A3. Addendum 4 revises Sheet 27a to match the revised 025 Unit Pricing Form for these bid items.
- Q3.1 *How will the additional weight for the additive items be addressed? Will the bridge designer need to prepare four different designs and prices?*
A3.1 The insert, tube, and frame are one combined option (Alternate 1A). The bridge should be priced as follows: the pedestrian bridge included in the base bid (Base Bid item SP.3) and Additive Alternate 1 (Additive Alternative #1 Items PB.9 – PB.13). The bridge should be designed for the ultimate loading condition, which includes Alternate 1A. The weight of Panel B (Center) is estimated to be 1800 lbs, the weight of Panel A is estimated to be 1600 lbs. In addition please note to contractor that the additional bridge panels will be design build; therefore shall be coordinated and sealed shop drawings issued from the selected bridge manufacture prior to fabrication.
- Q4. *Can the bid date be extended and the question deadline be extended as well?*
A4. Addendum 2 extended the deadline for questions to Thursday August 28, 2012. Addendum 3 extended the bid proposal deadline to September 11, 2012.
- Q5. *Is there any way to have another pre bid meeting so the contractors can ask question to the engineer instead of trying to ask in writing?*
A5. Addendum 2 added another questions and answer session with the project team on Tuesday, August 21, 2012.
- Q6. *Can you explain the discrepancies on the bid form items Add Alt. #1 PB9-PB12? They are different than the plans show.*
A6. Sheet 27a is updated with this Addendum 4.
- Q7. *Can you tell us what page shows the Glass lithocrete banding detail?*
A7. A plan view is shown on sheet LS 1.6 Detail 2 and it is also called out in Detail 2 on sheet LS2.6. The bridge profile will be developed by the bridge manufacturer with the 6" concrete slab. The slab includes the banding according to the hatching on the plan view. Lithocrete suppliers can provide cut sheets for the material which does require special installation.

- Q8. *Addendum No 1 indicates changes to various items which I did not find anything that changed. The ones which I did not find changes were:*
 852- 60" manhole extra depth
 833- Existing meter & existing meter box relocation
 833- Meter box
 PB.10 – PEDESTRIAN BRIDGE STEEL INSET
 PB.11- PEDESTRIAN BRIDGE STEEL TUBE
 PB.12- PEDESTRIAN BRIDGE STEEL FRAME
 PB.13- GLASS LITHOCRETE BANDING
 PI.3- UNDER VEHICULAR BRIDGE LIGHT
 PI.4 – NEW BEGA POLE LIGHT
- A8. The quantities for items 852-60" manhole extra depth, 833-Existing meter & existing meter box relocation, and 833- Meter box did not change with Addendum #1.
 Items PB.10, PB.11, and PB.12 were included in the changes because they shifted from Alternate 1B to Alternate 1A.
 Item PB.13 was included because the specification number was added.
 Item PI.3 and PI.4 were included because their item numbers changed to PI.2 and PI.3, respectively.
- Q9. *Quantities in the bid tab are shown as whole numbers but the cell of the file may be extend up to 9 decimal points.*
- A9. The 025 bid tab form is corrected with this Addendum 4.
- Q10. *The bid total summation needs to include the new "Landscape – Electrical Base Bid "*
- A10. The bid total summation on Unit Pricing Form 025 is updated with this Addendum 4.
- Q11. *Page 404 – VB.3 & VB.4 – need clarification on which items gets paid where?*
- A11. VB.3 refers to the light fixture, conduit and light housing on the monument; VB.4 refers to the entry tower monument (sculpture), footing, and wall with limestone stone veneer. They are two separate pay items.
- Q11.1 *PB.2 is listed on the base bid in one place but additive alternate elsewhere. Can you clarify?*
- A11.1 Item PB.2 is concrete banding using plain concrete (tool joint) of a color and finish in accordance with landscape material schedule M.7 (sheet 375); the additive alternate #1 item PB.13 upgrades the banding to add a lithocrete finish in accordance with SPECIFICATION 321316.15-4.
- Q11.2 *Can the vehicular bridge and monument items VB.1 and VB.2 be clarified?*
- A11.2 VB.1 is the limestone stone veneer, and VB.2 is the cast stone cap. The description code shown in the Unit Pricing Form for item VB.1 is updated to refer to landscape and material schedule item S.1 with this Addendum 4.
- Q12. *Can the City reconsider the 2% max for the Diversion & Care of Water?*
- A12. The percentage for care of water is revised with this Addendum.
- Q12.1 *Would the City allow a cofferdam on the west side of the new vehicular bridge and one on the east side of the existing Josephine-Tobin Bridge with pipes underneath (or other consideration for drainage) to allow for construction work on both bridges?*
- A12.1 The City would not object to this approach provided erosion and siltation are addressed appropriately.
- Q13. *Page 405 – Aluminum letters call for a corrugated face with a 4" return. Can we get a larger detail and is the return and the corrugated face a continuous weld?*

- A13. Aluminum letters are to be perforated and not corrugated. The letters do not need to be a continuous weld, but there needs to be some sort of waterproofing protection. Photos of an example perforated sign face are provided below. On past projects they have been produced by sign manufacturers. Sheet LP2.4 is updated in this Addendum 4.



- Q14. *Can the landscaping quantities be clarified? Specifically the Entry Landscape Bed and Main Entry Plants item VB.11.*
A14. Sheet LP2.1 is updated to provide additional information for the number of each kind of plant in this Addendum 4.
- Q15. *Can the bid date be extended until September 11, 2012 due to the TXDOT letting (Sept. 5-6) and being the day after Labor Day?*
A15. Addendum 3 revised the bid date to September 11, 2012.
- Q16. *Slab quantities on all three bridges appear to be wrong. Can you verify?*
A16. Slab quantities have been updated with this Addendum 4.
- Q17. *Bridge Sidewalk quantities on all bridges appear to be wrong. Can you verify?*
A17. Bridge Sidewalk quantities have been updated with this Addendum 4.
- Q18. *Is the concrete surface treatment only on slab and approach slab? If so the quantities appear to be wrong. Can you verify?*
A18. Concrete Surface Treatments are required on all bridge surfaces including sidewalk and rails, quantities have been updated with this Addendum 4. (Note rails quantities were not included for areas receiving limestone stone veneer)
- Q19. *Rail on bridges appear to be wrong. Can you verify?*
A19. Rail quantities are correct as shown.
- Q20. *Do the approach slabs go under the sidewalk? If so the quantities appear to be wrong.*
A20. Yes, approach slab quantities have been updated with this Addendum 4.
- Q21. *Can you verify all bridge slab and bridge sidewalk depths?*
A21. Bridge and sidewalk depths are correct as shown.
- Q22. *On the Woodlawn Ave Bridge Abutment details sheet in the quantities box it says 4 columns not 5. Please verify.*
A22. Woodlawn Ave Bridge Abutment details sheets have been revised with this Addendum 4.
- Q23. *How is the Pedestrian Bridge supplier to determine the design weight limits if they are unaware of the Additive Alternate the COSA will choose?*
A23. See response to question 3.1 above.
- Q24. *Where do the monuments on the Pedestrian Bridge go?*
A24. They should be placed at each of the four corners of the bridge. Sheet 237 includes abutment details with squares representing the monument locations.
- Q25. *On the Schedule, page 2, activity 230 – the north side of Woodlawn Bridge is being built first. Elsewhere it looks like the south side of the bridge is planned to be built first. Please clarify.*
A25. The north side of the W. Woodlawn Ave. Bridge will be constructed first in accordance with the Traffic Control Plans. Sheet 246 is updated with this Addendum 4.
- Q26. *Will the bridges require any special finishes (such as TXDOT paint, surface grinding, etc.) where specific treatments aren't already called out?*
A26. No special finishes will be required.

Q27. *Pay item LM.11 Existing Tree Protection has a quantity of 1,579. The unit of measure is “ea”, should this be by “LF”?*

A27. Yes, Unit Pricing Form 025 and Quantity Summary Sheet 27a are updated with this addendum.

Q28. *Special Specification 1 – Diversion and Care of Water, Paragraph 3.05A states that there are hydrologic and hydraulic models of existing site conditions available upon request. Can you please make these reports available? We are looking for channel base flows needed to design the diversion.*

A28. The hydrologic and hydraulic models for Seeling Channel do not include a defined base flow.

Q29. Please clarify the limits of the channel retaining wall concrete and quantities.

A29. Reinforced concrete associated with the channel walls, bottom slab, upstream and downstream transitions sections have been quantified under bid item COSA 307.1.

CITY OF SAN ANTONIO
025 UNIT PRICING FORM

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PROJECT NAME: Seeling Channel Improvements, Phase I
PROJECT NO.: 40-00213

ALT. NO.	ITEM NO.	DESC. CODE	S.P. NO	BID ITEM DESCRIPTION	UNIT OF MEASURE	APPROX. QUANTITIES	UNIT BID PRICE	AMOUNT	ITEM SEQUENCE NO.
ROADWAY AND DRAINAGE BASE BID									
	COSA 100.1			MOBILIZATION	LS	1			
	COSA 100.2			INSURANCE & BOND	LS	1			
	COSA 101.1			PREPARING RIGHT OF WAY	LS	1			
	COSA 104.1			STREET EXCAVATION	CY	8361			
	COSA 105.1			CHANNEL EXCAVATION	CY	18783			
	COSA 107.1			EMBANKMENT (FINAL)(DENS CONT)(TY C)	CY	4137			
	COSA 108.1			LIME TREAT. SUBGRADE (6" COMPACTED DEPTH)	SY	21505			
	COSA 108.2			LIME	TON	162			
	COSA 110.2.1			TRANSPORTATION OF IMPACTED SOILS	CY	71			
	COSA 110.2.2			DISPOSAL OF IMPACTED SOILS	CY	71			
	COSA 110.4.1			REMOVAL, STORAGE & TREATMENT OF IMPACTED GROUNDWATER	GAL	500			
	COSA 110.5.1			HEALTH & SAFETY PLAN	LS	1			
	COSA 110.5.2			WASTE MANAGEMENT PLAN	LS	1			
	COSA 200.1			FLEXIBLE BASE (6" COMPACTED DEPTH)	SY	5466			
	COSA 202.1			PRIME COAT	GAL	2238			
	COSA 203.1			TACK COAT	GAL	963			
	COSA 205.2a			HOT MIX ASPHALTIC PAVEMENT, TYPE B (4" COMP. DEPTH)	SY	686			
	COSA 205.2b			HOT MIX ASPHALTIC PAVEMENT, TYPE B (8" COMP. DEPTH)	SY	2020			
	COSA 205.2c			HOT MIX ASPHALTIC PAVEMENT, TYPE B (9" COMP. DEPTH)	SY	3252			
	COSA 205.3b			HOT MIX ASPHALTIC PAVEMENT, TYPE C (2" COMP. DEPTH)	SY	2370			
	COSA 205.4b			HOT MIX ASPHALTIC PAVEMENT, TYPE D (2" COMP. DEPTH)	SY	6706			
	COSA 205.4c			HOT MIX ASPHALTIC PAVEMENT, TYPE D (3" COMP. DEPTH)	SY	2994			
	COSA 230.1			FLEXIBLE PAVEMENT STRUCTURE REPAIR (6" HMAC TY B)	SY	112			
	COSA 306			STRUCTURAL EXCAVATION	CY	24863			
	COSA 307.1			CONCRETE STRUCTURE (RETAINING WALLS)	CY	4454			
	COSA 307.1b			CONCRETE STRUCTURE (ELEVATED SIDEWALKS)	CY	15.4			
	COSA 401.1a			REINFORCED CONCRETE PIPE (CLASS III)(24" DIA)	LF	283			
	COSA 401.1b			REINFORCED CONCRETE PIPE (CLASS III)(36" DIA)	LF	11			
	COSA 401.1c			REINFORCED CONCRETE PIPE (CLASS III)(42" DIA)	LF	215			
	COSA 401.1d			REINFORCED CONCRETE PIPE (CLASS III)(48" DIA)	LF	70			
	COSA 401.1e			REINFORCED CONCRETE PIPE (CLASS III)(60" DIA)	LF	59			
	COSA 401.1f			REINFORCED CONCRETE PIPE (CLASS III)(66" DIA)	LF	87			
	COSA 403.7a			INLET TYPE I (COMPLETE)(10FT)	EA	15			
	COSA 403.7b			INLET TYPE II (COMPLETE)(10FT)	EA	5			
	COSA 403.9			INLET EXTENSIONS (10 FT)	EA	24			
	COSA 407.1			CONCRETE ENCASEMENT	CY	36			
	COSA 410.2			GRAVEL SUBGRADE FILLER	CY	840			
	COSA 412.1			CEMENT STABILIZED SAND	CY	114			
	COSA 413.1			FLOWABLE BACKFILL (LOW STRENGTH)	CY	80			
	COSA 500.1			CONCRETE CURBING	LF	5100			
	COSA 500.4			CONCRETE CURB & GUTTER	LF	787			
	COSA 502.1			CONCRETE SIDEWALKS	SY	1822			
	COSA 503.1			PORTLAND CEMENT CONCRETE DRIVEWAY	SY	971			
	COSA 503.2			PORTLAND CEMENT CONCRETE DRIVEWAY-COMMERCIAL	SY	136			
	COSA 503.5			GRAVEL DRIVEWAY	SY	15			
	COSA 505.1			CONCRETE RIPRAP (4" THICK)	SY	70			
	COSA 505.11			CONCRETE RIPRAP (6" THICK)	SY	67			
	COSA 505.12			CONCRETE RIPRAP (8" THICK)	SY	1368			
	COSA 506.1			CONCRETE RETAINING WALLS - COMB TY	CY	36.4			
	COSA 507.2			CHAINLINK WIRE FENCE (6' HIGH)	LF	1831			
	COSA 507.4			GATE- PEDESTRIAN	EA	4			
	COSA 507.5			GATE- VEHICULAR (20 FEET)	OPENING	1			
	COSA 508.1			RELOCATING WIRE FENCE	LF	748			
	COSA 509.1			METAL BEAM GUARD RAIL	LF	915			
	COSA 511.1			FLEXIBLE PAVEMENT STRUCTURE REPAIR	SY	27			
	COSA 513.1			REMOVING AND RELOCATING MAIL BOXES	EA	1			
	COSA 515.1			TOPSOIL (6")	CY	2129			

CITY OF SAN ANTONIO
025 UNIT PRICING FORM

2 of 8

PROJECT NAME: Seeling Channel Improvements, Phase I
PROJECT NO.: 40-00213

ALT. NO.	ITEM NO.	DESC. CODE	S.P. NO	BID ITEM DESCRIPTION	UNIT OF MEASURE	APPROX. QUANTITIES	UNIT BID PRICE	AMOUNT	ITEM SEQUENCE NO.
	COSA 516.1			BERMUDA SODDING	SY	3213			
	COSA 516.2			ST. AUGUSTINE SODDING	SY	3213			
	COSA 520.1			HYDROMULCH	SY	6319			
	COSA 522.1			SIDEWALK PIPE RAILING	LF	301			
	COSA 523.1			ADJUST CHAIN LINK VEHICULAR GATE	EA	1			
	COSA 523.3			ADJUST CHAIN LINK PEDESTRIAN GATE	EA	1			
	COSA 523.4			ADJUST WROUGHT IRON VEHICULAR GATE	EA	2			
	COSA 523.6			ADJUST WROUGHT IRON PEDESTRIAN GATE	EA	2			
	COSA 524.1			CONCRETE STEPS	CY	2			
	COSA 525.1			CONCRETE TRAFFIC BARRIER (PORTABLE)(LOW PROFILE)	LF	740			
	COSA 530.1			BARRICADES, SIGNS & TRAFFIC HANDLING	LS	1			
	COSA 531.03			R1-1 STOP (30")(HIGH DENSITY)	EA	6			
	COSA 531.06			R2-1 SPEED LIMIT (24"x30")(HIGH DENSITY)	EA	6			
	COSA 531.13			R3-7 LEFT LANE MUST TURN LEFT OR RIGHT LANE MUST TURN RIGHT	EA	1			
	COSA 531.14			R3-8 LANE-USE CONTROL (30"x30")(HIGH DENSITY)	EA	1			
	COSA 531.44			W16-7 DIAGONAL ARROW SIGN	EA	1			
	COSA 531.51			W11-2 PED CROSSING	EA	3			
	COSA 531.57			9 INCH [229mm] STREET NAME, BLOCK NUMBER (VARIES x9")(HIGH DENSITY)	EA	12			
	COSA 531.62			W16-9 AHEAD	EA	2			
	COSA 531.68			R3-17 BIKE LANE	EA	8			
	COSA 531.69			R3-17aP AHEAD PLAQUE	EA	2			
	COSA 531.7			R3-17bP END PLAQUE	EA	1			
	COSA 531.71			R4-4 BEGIN RIGHT TURN YIELD TO BIKES	EA	1			
	COSA 531.86			R8-3a No PARKING	EA	8			
	COSA 531.87			R7-201P TOW AWAY ZONE PLAQUE	EA	8			
	COSA 531.88			W8-20 WATCH FOR WATER ON ROAD	EA	2			
	COSA 531.89			RS-031 BUS STOP	EA	3			
	COSA 535.01			4 INCH WIDE YELLOW LINE	LF	5119			
	COSA 535.04			8 INCH WIDE WHITE LINE	LF	3910			
	COSA 535.07			24 INCH WIDE WHITE LINE	LF	579			
	COSA 535.08			RIGHT WHITE ARROW	EA	2			
	COSA 535.09			LEFT WHITE ARROW	EA	1			
	COSA 535.12			WORD "ONLY"	WORD	3			
	COSA 535.16			STRAIGHT WHITE ARROW BICYCLE FACILITY	EA	28			
	COSA 535.17			BICYCLE RIDER SYMBOL	EA	28			
	COSA 535.18			SHARROW SYMBOL (BICYCLE AND CHEVRON)	EA	3			
	COSA 537.8			TRAFFIC BUTTON (TYPE II A-A)	EA	76			
	COSA 540.01.1			ROCK FILTER DAMS (INSTALL/REMOVE) (TYPE 1)	LF	70			
	COSA 540.06			CONSTRUCTION EXITS (INSTALL/REMOVE)	SY	800			
	COSA 540.09			TEMPORARY SEDIMENT CONTROL FENCE	LF	7111			
	COSA 540.1			CURB INLET GRAVEL FILTERS	LF	1187			
	COSA 550.1			TRENCH EXCAVATION SAFETY PROTECTION	LF	1944			
	COSA 551.1			TEMPORARY SPECIAL SHORING	SF	4622			
	COSA 554.1			EROSION CONTROL MATTING	SY	7930			
	COSA 618.1			CONDUIT TRENCHED 1-1/2 INCH PVC	LF	30			
	COSA 618.1			CONDUIT ON POLE 1-1/2 INCH RMC	LF	150			
	COSA 620.1			ELECTRICAL CONDUCTORS (NO 6) (BARE)	LF	120			
	COSA 680.2			INSTALLATION OF HIGHWAY TRAFFIC SIGNALS (SYSTEM)	EA	1			
	COSA 682.4			INSTALL PEDESTRIAN SIGNAL SECTION (12 INCH) LED (2 IND)	EA	8			
	COSA 684.1			TRAFFIC SIGNAL CABLES (TYPE A) (14 AWG) (9-CONDUCTOR)	LF	550			
	COSA 688.2			PEDESTRIAN DETECTORS (2 INCH PUSH-BUTTON)	EA	8			
	COSA 694.1			VIVDS PROCESSOR UNIT	EA	4			
	COSA 694.2			VIVDS CAMERA ASSEMBLY	EA	4			
	COSA 694.4			VIVDS SET-UP SYSTEM	EA	1			
	COSA 694.6			VIVDS COMMUNICATIONS CABLE (COAXIAL)	LF	380			
	TXDOT 354 2002			PLANE & TEXT ASPH CONC PAV (0" - 2")	SY	2370			
	TXDOT 360 2015			CONC PVMT (JOINTED - CPCD) (9.5")	SY	155			
	TXDOT 360 2016			CONC PVMT (JOINTED - CPCD) (10.5")	SY	597			
	TXDOT 400 2001			STRUCT EXCAV	CY	50			

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PROJECT NAME: Seeling Channel Improvements, Phase I
PROJECT NO.: 40-00213

ALT. NO.	ITEM NO.	DESC. CODE	S.P. NO	BID ITEM DESCRIPTION	UNIT OF MEASURE	APPROX. QUANTITIES	UNIT BID PRICE	AMOUNT	ITEM SEQUENCE NO.
	TXDOT 400 2005			CEM STABIL BKFL	CY	139			
	TXDOT 400 2020			CEMENT STABILIZED SAND	CY	74.4			
	TXDOT 416 2002			DRILLED SHAFT (24")	LF	1642			
	TXDOT 416 2003			DRILLED SHAFT (30")	LF	660			
	TXDOT 420 2003			CL C CONC (ABUT)	CY	170.5			
	TXDOT 420 2004			CL C CONC (BENT)	CY	130			
	TXDOT 420 2006			CL C CONC (RAIL FOUNDATION)	CY	13			
	TXDOT 420 2029			CL S CONC (SLAB)	CY	441.7			
	TXDOT 420 2033			CL S CONC (APPR SLAB)	CY	283.4			
	TXDOT 420 2034			CL S CONC (BRIDGE SDWLK)	CY	166.6			
	TXDOT 420			CL C CONC (MONUMENT)	CY	22.3			
	TXDOT 425 2014			PRESTR CONC SLAB BEAM (4SB12)	LF	808			
	TXDOT 425 2016			PRESTR CONC SLAB BEAM (4SB15)	LF	1471			
	TXDOT 425 2017			PRESTR CONC SLAB BEAM (5SB15)	LF	2112			
	TXDOT 428 2001			CONC SURF TREATMENT (CLASS I)	SY	3033.36			
	TXDOT 432 2001			RIPRAP (CONC) (4IN)	CY	46.7			
	TXDOT 432 2021			RIPRAP (STONE PROTECTION)(18 IN)	CY	1251.5			
	TXDOT 450 2166			RAIL (TY C223)	LF	440			
	TXDOT 450 2203			RAIL (TY T221)(MOD)	LF	436.3			
	TXDOT 454 2001			SEALED EXPANSION JOINT (4 IN)(SEJ-A)	LF	350			
	TXDOT 459 2015			GABIONS (PVC)(GALV)(3FTX3FT)	CY	231			
	TXDOT 459 2017			GABIONS (PVC)(GALV)(3FTX1.5FT)	CY	35			
	TXDOT 462 2001			CONC BOX CULV (3 FT X 2 FT)	LF	13			
	TXDOT 462 2012			CONC BOX CULV (6 FT X 5 FT)	LF	173			
	TXDOT 462 2016			CONC BOX CULV (7 FT X 5 FT)	LF	113			
	TXDOT 462 2021			CONC BOX CULV (8 FT X 6 FT)	LF	294			
	TXDOT 462 2026			CONC BOX CULV (9 FT X 7 FT)	LF	328			
	TXDOT 465 2001			INLET (COMPL) TY C	EA	1			
	TXDOT 465 2090			MANH (COMPL)(JUNCT BOX)(TY 2)	EA	3			
	TXDOT 465 2093			MANH (COMPL)(TY 1-C)	EA	5			
	TXDOT 465 2474			INLET EXT (TY C-E)	EA	1			
	TXDOT 465 2736			INLET (COMPL)(TY H WITH GRATE)	EA	1			
	TXDOT 466 2048			WINGWALL (PW)(HW=4 FT)	EA	2			
	TXDOT 466 2053			WINGWALL (PW)(HW=9 FT)	EA	1			
	TXDOT 474 2005			SLOT DRAIN (GAL STL)(18 IN)	LF	120			
	TXDOT 474 2006			SLOT DRAIN OUTFALL (GAL STL)(18 IN)	LF	252			
	TXDOT 496 2010			REMOV STR (BRIDGE)	EA	1			
	TXDOT 508 2002			CONSTRUCTING DETOURS	SY	242			
	TXDOT 512 2004			PORT CTB (FUR & INST)(SNGL SLP OR F-SHAPE)(TY 1)	LF	120			
	TXDOT 512 2022			PORT CTB (MOV)(SNGL SLP OR F-SHAPE)(TY 1)	LF	120			
	TXDOT 512 2040			PORT CTB (REMOVE)(SNGL SLP OR F-SHAPE)(TY 1)	LF	120			
	TXDOT 544 2001			GUARDRAIL END TREATMENT (INSTALL)	EA	2			
	TXDOT 545 2001			CRASH CUSH ATTEN (VIA SFPM)(INSTL)(WORK ZONE)	EA	2			
	TXDOT 545 2002			CRASH CUSH ATTEN (VIA SFPM)(MOVE & RESET)(WORK ZONE)	EA	2			
	TXDOT 545 2003			CRASH CUSH ATTEN (VIA SFPM)(REMOVE)(WORK ZONE)	EA	2			
	TXDOT 545 2028			CRASH CUSH ATTEN (INSTL)(QUAD)(N)	EA	2			
	TXDOT 658 2238			INSTL DEL ASSM (D-SW)SZ 1(FLX)SRF(BI)	EA	43			
	TXDOT 658 2259			INSTL DEL ASSM (D-SW)SZ (TYC)CTB(BI)	EA	20			
	TXDOT 658 2267			INSTL DEL ASSM (D-SY)SZ 1(FLX)SRF	EA	21			
	TXDOT 658 2315			INSTL OM ASSM (OM-2Y)(WC) GND	EA	4			
	TXDOT 658 2316			INSTL OM ASSM (OM-2Z)(FLX)GND	EA	4			
	TXDOT 658 2339			INSTL OM ASSM (OM-2Y)(WC) GND (BI)	EA	14			
	TXDOT 658 2383			INSTL OM ASSM (OM-3R)(WC) GND	EA	1			
	SP.1		SP. 1	CARE AND DIVERSION OF WATER	LS	1			
	SP.2		SP. 2	SOLDIER PILE & LAGGING	SF	9903			
	SP.3		SP. 3	CONTECH PEDESTRIAN BRIDGE	LS	1			
	SP.4		508	REMOVE & RESET WROUGHT IRON FENCE	LF	368			

TOTAL ROADWAY AND DRAINAGE BASE BID _____

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PROJECT NAME: Seeling Channel Improvements, Phase I
PROJECT NO.: 40-00213

ALT. NO.	ITEM NO.	DESC. CODE	S.P. NO	BID ITEM DESCRIPTION	UNIT OF MEASURE	APPROX. QUANTITIES	UNIT BID PRICE	AMOUNT	ITEM SEQUENCE NO.
SAWS SEWER MAIN BASE BID									
	100			MOBILIZATION	LS	1			
	101			PREPARATION OF R.O.W.	LS	1			
	550			TRENCH EXCAVATION SAFETY PROTECTION	LF	2,255			
	848			8" PVC SANITARY SEWER LINE (14' - 18')	LF	272			
	848			10" PVC SANITARY SEWER LINE (10' - 14')	LF	67			
	848			10" PVC SANITARY SEWER LINE (14' - 18')	LF	125			
	848			15" PVC SANITARY SEWER LINE (6' - 10')	LF	13			
	848			15" PVC SANITARY SEWER LINE (10' - 14')	LF	234			
	848			15" PVC SANITARY SEWER LINE (14' - 18')	LF	286			
	848			18" PVC SANITARY SEWER (6' - 10')	LF	10			
	848			21" PVC SANITARY SEWER (14' - 18')	LF	436			
	848			30" FIBERGLASS REINFORCED GRAVITY SANITARY SEWER (6' - 10')	LF	40			
	848			30" FIBERGLASS REINFORCED GRAVITY SANITARY SEWER (14' - 18')	LF	894			
	851			ADJUST EXISTING MANHOLES	EA	4			
	850			SANITARY SEWER STRUCTURES - 72"	EA	6			
	850			SANITARY SEWER STRUCTURES - 96"	EA	1			
	852			48" MANHOLE (0' - 6' DEEP)	EA	13			
	852			60" MANHOLE (0' - 6' DEEP)	EA	1			
	852			48" MANHOLE EXTRA DEPTH	VF	103			
	852			60" MANHOLE EXTRA DEPTH	VF	10			
	854			SANITARY SEWER LATERALS	LF	118			
	854			SANITARY SEWER CLEANOUT	EA	6			
	855			RECONSTRUCT EXISTING MANHOLE	EA	2			
	856			JACKING, BORING OR TUNNELING (48")	LF	122			
	856			CARRIER PIPE - 30" FIBERGLASS REINFORCED GRAVITY SEWER PIPE	LF	122			
	856			CASING - 48" STEEL PIPE	LF	122			
	858			CONCRETE ENCASEMENT	CY	19			
	860			VERTICAL STACKS	VF	20			
	862			ABANDONMENT OF SANITARY SEWERS (15" OR LARGER)	LF	1,463			
	864			BYPASS PUMPING	LS	1			
	866			8" - 15" SEWER MAIN TELEVISION INSPECTION	LF	984			
	866			18" - 21" SEWER MAIN TELEVISION INSPECTION	LF	446			
	866			24" - 30" SEWER MAIN TELEVISION INSPECTION	LF	934			
	866			8" - 15" SEWER MAIN CLEANING & PRE-TELEVISION (EXISTING MAINS)	LF	226			
	866			18" - 21" SEWER MAIN CLEANING & PRE-TELEVISION (EXISTING MAINS)	LF	1,652			

TOTAL SAWS SEWER MAIN BASE BID

SAWS WATER MAIN BASE BID									
	100			MOBILIZATION	LS	1			
	101			PREPARATION OF R.O.W.	LS	1			
	550			TRENCH EXCAVATION SAFETY PROTECTION	L.F.	2150			
	816			8" STEEL WATERLINE (SUSPENDED)	L.F.	167			
	818			6" PVC WATERLINE	L.F.	110			
	818			8" PVC WATERLINE	L.F.	1995			
	818			12" PVC WATERLINE	L.F.	45			
	824			RELAY 3/4" LONG SERVICE	EA	17			
	824			RELAY 3/4" SHORT SERVICE	EA	7			
	824			RELAY 1" SHORT SERVICE	EA	1			
	824			NEW 5/8" LONG SERVICE	EA	1			
	824			NEW 3/4" UNMETERED LONG SERVICE	EA	1			
	828			6" GATE VALVE	EA	1			
	828			8" GATE VALVE	EA	12			
	828			12" GATE VALVE	EA	1			
	833			EXISTING METER & EXISTING METER BOX RELOCATION	EA	16			
	833			METER BOX	EA	15			
	836			PIPE FITTING, ALL SIZES AND TYPES	TON	5.9			

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PROJECT NAME: Seeling Channel Improvements, Phase I
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ALT. NO.	ITEM NO.	DESC. CODE	S.P. NO	BID ITEM DESCRIPTION	UNIT OF MEASURE	APPROX. QUANTITIES	UNIT BID PRICE	AMOUNT	ITEM SEQUENCE NO.
	840			6" WATER LINE TIE IN	EA	7			
	840			8" WATER LINE TIE IN	EA	6			
	840			12" WATER LINE TIE IN	EA	1			
	834			FIRE HYDRANT ASSEMBLY, COMPLETE	EA	3			
	841			HYDROSTATIC TESTING	EA	6			
	844			2" BLOWOFF TEMPORARY	EA	9			
	846			AIR RELEASE ASSEMBLY	EA	2			
	858			CONCRETE ENCASEMENT	CY	17			
	3000.06			REMOVAL, TRANSPORTATION AND DISPOSAL OF AC PIPE	LF	515			

TOTAL SAWS WATER MAIN BASE BID

LANDSCAPE BASE BID

PEDESTRIAN BRIDGE

	PB.1	M.14		ASPHALT JOGGING TRAIL (INCLUDES CONCRETE RIBBON CURB AND DRAINAGE GAPS)	SF	4,572			
	PB.2	M.7		CONCRETE BANDING ON PEDESTRIAN BRIDGE	SF	852			
	PB.3	M.8		CONCRETE WALK FOR PEDESTRIAN BRIDGE	SF	1,789			
	PB.4	L.4		PEDESTRIAN BRIDGE BEGA LIGHTS COMPLETE	EA	22			
	PB.5	L.5		REMOVABLE BOLLARD COMPLETE	EA	6			
	PB.6	XL 2-5	LB 1.0	RELOCATION OF EXISTING BEGA POLE LIGHTING COMPLETE	EA	4			
	PB.7		LS1.6/LS2.3	ENTRY COLUMN COMPLETE (PEDESTRIAN BRIDGE)	EA	4			
	PB.8	M.6	LS2.1	ORNAMENTAL STEEL RAILING ON CULVERT COMPLETE	LF	44			

VEHICULAR BRIDGE AND MONUMENT

	VB.1	S.1		LIMESTONE STONE VENEER	FF	9,944			
	VB.2	S.2		CAST STONE CAP	LF	1,988			
	VB.3	M.1 & L.3		ALUMINUM LIGHT HOUSE ENCLOSURE AND ENTRY MONUMENT TOWER LIGHT	EA	1			
	VB.4	M.2 & M.3	LS 2.3	ENTRY TOWER MONUMENT & ENTRY WALL W/ FOUNDATION COMPLETE	EA	1			
	VB.5	M.4 & M.3	LS 2.4	ALUMINUM LETTERS ON ENTRY WALL W/ STEEL BACKING	EA	16			
	VB.6	M.6		ORNAMENTAL STEEL RAILING ON WALLS COMPLETE	LF	1,907			
	VB.7		LS 2.5	VEHICULAR BRIDGE ARCH. COLUMNS COMPLETE	EA	8			
	VB.8		1/LS 1.1 /LS2.3	ENTRY COLUMN COMPLETE (MONUMENT WALLS)	EA	2			
	VB.9	L.1		L.E.D. LIGHT IN LETTERS	EA	16			
	VB.10	L.2	LS 2.5	BEGA POLE LIGHT MOUNTED ON VEHICULAR BRIDGE ARCH. COLUMN COMPLETE	EA	4			
	VB.11		LP1.2/LP2.1	ENTRY LANDSCAPE BEDS WITH MAIN ENTRY PLANTS	LS	1			
	VB.12		LI1.1	IRRIGATION SYSTEM COMPLETE	LS	1			

LANDSCAPE MITIGATION

	LM.1		LP	FERTILIZER	LS	1			
	LM.2		LP 2.1	LANDSCAPE PLANTING - 2" TREES	EA	102			
	LM.3		LP 2.1	LANDSCAPE PLANTING - 4" TREES	EA	36			
	LM.4		LP 2.1	LANDSCAPE PLANTING - 6" TREES	EA	48			
	LM.5		Specification Section 02900, 02935 LP	CHANNEL PLANTS	LS	1			
	LM.6		Specification Section 02900, 02935 LP	NEW PLANTING WATERING / GATOR BAGS / WATER TRUCK	LS	1			
	LM.7		Specification Section 02900, 02935 LP	PLANT AND TURF MAINTENANCE (90 DAYS)	LS	1			
	LM.8		Specification Section 02900, 02935 LP	BERMUDA SOD - W/ 2" COMPOSTED TOPDRESSING	SF	6,355			
	LM.9		Specification Section 02900, 02935 LP	BERMUDA HYDROMULCH - W/ 2" COMPOSTED TOP DRESSING	SF	215,675			
	LM.10		Specification Section 02900, 02935 LP	HYDROMULCH- DRAINFIELD MIX 2" COMPOSTED TOP DRESSING	SF	61,054			
	LM.11		LTP 2.5	EXISTING TREE PROTECTION	LF	1,579			
	LM.12		LTP 1.4	EXISTING TREE FERTILIZATION AND PRUNNING	EA	2			
	LM.13		LTP 1.3	EXISTING CYPRESS TREE MILLING	EA	5			

TOTAL LANDSCAPE BASE BID

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PROJECT NAME: Seeling Channel Improvements, Phase I
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ALT. NO.	ITEM NO.	DESC. CODE	S.P. NO	BID ITEM DESCRIPTION	UNIT OF MEASURE	APPROX. QUANTITIES	UNIT BID PRICE	AMOUNT	ITEM SEQUENCE NO.
LANDSCAPE - ELECTRICAL BASE BID									
PEDESTRIAN BRIDGE									
	PBE.1		428	#8 THHN WIRE, CONDUIT & JUNCTION BOXES	LF	1576			
	PBE.2		428	TRENCHING & BACKFILL	LF	282			
	PBE.3		428	DEMOLITION	HR	24			
	PBE.4		428	#10 THHN WIRE, CONDUIT & JUNCTION BOXES	LF	788			
	PBE.5		429	RISER DIAGRAM	LS	1			
	PBE.6		430	LIGHTING INSTALLED	EA	11			
	PBE.7		430	PANEL -TERMINATIONS	LS	1			
	PBE.8	Specs	260000, 260500 260514	GENERAL CONDITIONS	LS	1			
VEHICULAR BRIDGE AND MONUMENT									
	VBE.1		428	#8 THHN WIRE, CONDUIT & JUNCTION BOXES	LF	2682			
	VBE.2		428	TRENCHING & BACKFILL	LF	282			
	VBE.3		428	#10 THHN WIRE, CONDUIT & JUNCTION BOXES	LF	1,341			
	VBE.4		430	LIGHTING INSTALLED	EA	21			
	VBE.5	Specs	260000, 260500 260514	GENERAL CONDITIONS	LS	1			

TOTAL LANDSCAPE - ELECTRICAL BASE BID _____

CPS GAS BASE BID

INSTALL GAS MAIN OR CASING									
	G1.a			6" PLASTIC PIPE AND TRACER WIRE	LF	216			
	G1.b			2" PLASTIC PIPE AND TRACER WIRE	LF	73			
INSTALL GAS MAIN BY DIRECTIONAL DRILLING									
	G2			6" PLASTIC PIPE AND TRACER WIRE	LF	330			
UNCOVER AND ABANDON ACTIVE GAS MAINS ONLY WHEN MAIN IS NOT BEING REPLACED									
	G3			2" STEEL MAIN	EA	1			
RERUN AND LOWER GAS SERVICE OFF NEW MAIN									
	G4			1/2" SHORT SIDE	EA	1			
RERUN AND LOWER GAS SERVICE OFF NEW MAIN									
	G5			FLOWABLE FILL	CY	8			
	G6			CUT AND RESTORE PAVEMENT TO BE USED AS DIRECTED BY CPSE REP.	SY	25			

NOTE A: For each of the items above, the Contractor's work is to include: trenching, joining, testing, coating steel, building and painting risers and meter set-ups, connecting new pipe to existing pipe and installing all necessary fittings for tie-ins such as, stopper

NOTE B: Trenching is considered to be the normal method of service installation and is required on all service adjustments. A gas service can be rerun by INSERTION, when the old service is PULLED from the riser to one foot inside the property line, ONLY at the

NOTE C: Bid quantities shown are estimates by CPS Energy. Per foot prices shall be applied to the actual distance measured along the top of the trench or the actual length of the bore, as applicable.

NOTE D: Unit prices shall include insurance costs. CPS Energy's insurance requirements are specified in Exhibit GAS-6.

NOTE E: The COST to abandon the existing main(s) is not an ADDITIONAL item and is to be included in the Unit Price(s) for this item.

TOTAL CPS GAS BASE BID _____

CPS UNDERGROUND ELECTRIC BASE BID

	E1			LIGHT POLE FOUNDATIONS AND CONDUITS (COMPLETE)	LS	1			
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TOTAL CPS UNDERGROUND ELECTRIC BASE BID _____

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PROJECT NAME: Seeling Channel Improvements, Phase I
PROJECT NO.: 40-00213

ALT. NO.	ITEM NO.	DESC. CODE	S.P. NO	BID ITEM DESCRIPTION	UNIT OF MEASURE	APPROX. QUANTITIES	UNIT BID PRICE	AMOUNT	ITEM SEQUENCE NO.
ADDITIVE ALTERNATE #1 - PEDESTRIAN BRIDGE UPGRADES									
	PB.9	M.5		PEDESTRIAN BRIDGE SAFETY RAILING UPGRADE TO HORIZONTAL CABLES	LS	1			
	PB.10	M.9	LS 2.7, LS 2.8	PEDESTRIAN BRIDGE STEEL INSET	LF	480			
	PB.11	M.10	LS 2.7, LS 2.8	PEDESTRIAN BRIDGE STEEL TUBE	LF	480			
	PB.12	M.11	LS 2.9, LS 2.10	PEDESTRIAN BRIDGE STEEL FRAME	LF	480			
	PB.13	M.12	Specification Section 321316.15-4	GLASS LITHOCRETE BANDING	SF	852			

TOTAL ADDITIVE ALTERNATE #1 - PEDESTRIAN BRIDGE UPGRADES BID _____

ADDITIVE ALTERNATE #2- CONCRETE PARK TRAIL

	PI.1	M.7	LS 2.11	CONCRETE TRAIL	SF	8,486			
	PI.2	S.1, S.2	LS 2.11	RETAINING WALL COMPLETE (CONCRETE, CAP, FRENCH DRAIN, NDS PIPE & STONE VENEER)	LF	87			

TOTAL ADDITIVE ALTERNATE #2 - CONCRETE PARK TRAIL BID _____

ADDITIVE ALTERNATE #3- PARK TRAIL LIGHTING

	PI.3	L.6		UNDER VEHICULAR BRIDGE LIGHT	EA	1			
	PI.4	L.7		NEW BEGA POLE LIGHTS	EA	5			
	TE.1		428	#8 THHN WIRE, CONDUIT & JUNCTION BOXES	LF	150			
	TE.2		428	TRENCHING & BACKFILL	LF	75			
	TE.3		428	#10 THHN WIRE , CONDUIT & JUNCTION BOXES	LF	75			
	TE.4		430	LIGHTING INSTALLED	EA	6			
	TE.5	Specs	260000, 260500 260514	GENERAL CONDITIONS	LS	1			

TOTAL ADDITIVE ALTERNATE #3 - PARK TRAIL LIGHTING BID _____

ADDITIVE ALTERNATE #4- PARK SHADE STRUCTURE AND PICNIC AREAS

	PI.5	F.1 & M.13		PAVILION- (PREFABRICATED)	EA	1			
	PI.6	F.2		BBQ GRILL	EA	4			
	PI.7	F.3		ADA PICNIC TABLES	EA	4			
	PI.8	F.4		TRASH OR RECYCLABLE RECEPTACLES - COSA PARKS & RECREATION STANDARD	EA	3			
	PI.9	F.5		PEDESTAL DRINKING FOUNTAIN (W/ PET FOUNTAIN)	EA	1			
	PI.10	L.8		PAVILION LIGHTS	EA	2			
	PE.1		428	#8 THHN WIRE, CONDUIT & JUNCTION BOXES	LF	86			
	PE.2		428	TRENCHING & BACKFILL	LF	43			
	PE.3		428	#10 THHN WIRE, CONDUIT & JUNCTION BOXES	LF	43			
	PE.4		430	LIGHTING INSTALLED	EA	2			
	PE.5	Specs	260000, 260500 260514	GENERAL CONDITIONS	LS	1			

TOTAL ADDITIVE ALTERNATE #4 - PARK SHADE STRUCTURE AND PICNIC AREAS BID _____

CITY OF SAN ANTONIO
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PROJECT NAME: Seeling Channel Improvements, Phase I
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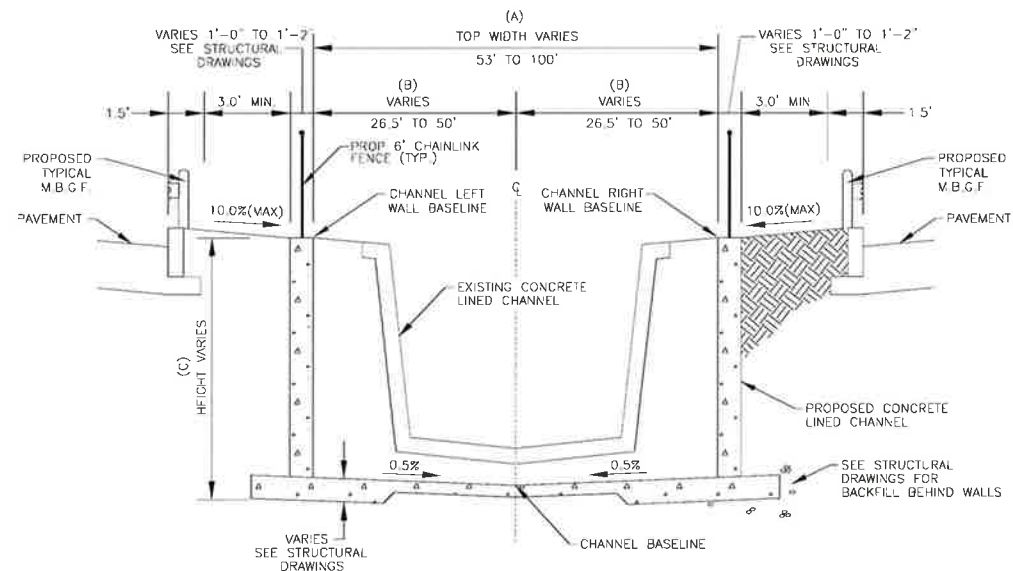
ALT. NO.	ITEM NO.	DESC. CODE	S.P.	NO	BID ITEM DESCRIPTION	UNIT OF MEASURE	APPROX. QUANTITIES	UNIT BID PRICE	AMOUNT	ITEM SEQUENCE NO.
SUMMARY										
TOTAL ROADWAY AND DRAINAGE BASE BID								\$	-	
TOTAL SAWS SEWER MAIN BASE BID								\$	-	
TOTAL SAWS WATER MAIN BASE BID								\$	-	
TOTAL LANDSCAPE BASE BID								\$	-	
TOTAL LANDSCAPE-ELECTRICAL BASE BID								\$	-	
TOTAL CPS GAS BASE BID								\$	-	
TOTAL CPS UNDERGROUND ELECTRIC BID								\$	-	
TOTAL BASE BID AMOUNT								\$	-	
TOTAL ADDITIVE ALTERNATE #1 - PEDESTRIAN BRIDGE UPGRADES BID								\$	-	
TOTAL ADDITIVE ALTERNATE #2 - CONCRETE PARK TRAIL BID								\$	-	
TOTAL ADDITIVE ALTERNATE #3 - PARK TRAIL LIGHTING BID								\$	-	
TOTAL ADDITIVE ALTERNATE #4 - PARK SHADE STRUCTURE AND PICNIC AREAS BID								\$	-	

_____ certifies that the unit prices shown on this complete computer print-out for all of the bid items and the alternates contained in this

_____ Acknowledged and agrees that the total bid amount shown will be read as its total bid and further agrees that the official total bid

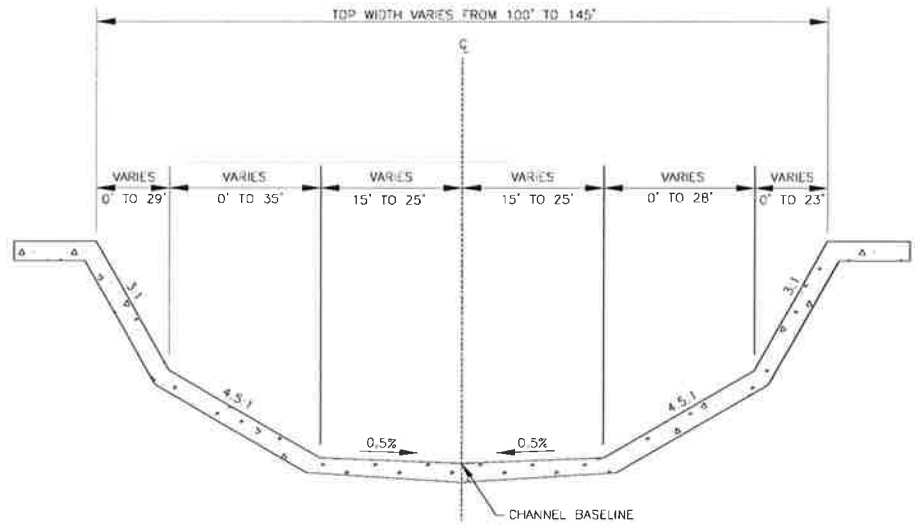
Signed: _____ Date: _____

Title: _____



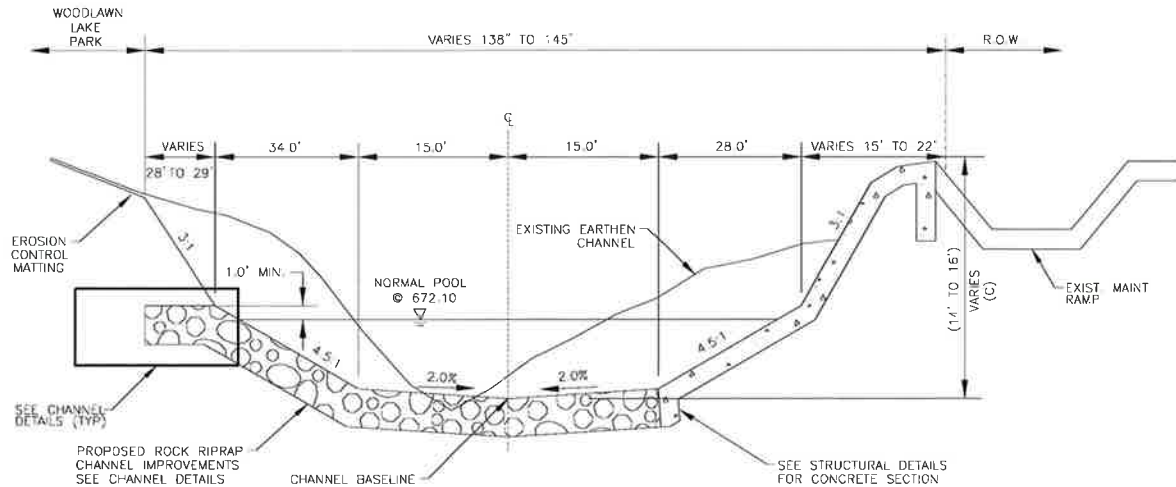
TYPICAL VERTICAL CONCRETE WALL SECTION
VERTICAL WALL
N.T.S.

Station		Top Width	Top Width to Centerline	Height
FROM	TO	(ft)	(ft)	(ft)
40+69.78	to 41+04.29	53	26.5	12-14
39+03.68	to 40+69.78	53-65	Varies	11-13
38+40.97	to 39+03.68	65	32.5	11-12
37+36.85	to 38+40.97	65-75	Varies	11-13
36+17.22	to 37+36.85	75	37.5	11-13
35+24.32	to 36+17.22	75-95	Varies	11-13
34+21.60	to 35+24.32	95	47.5	10-13
32+93.42	to 34+21.60	95-100	Varies	14-15
32+45.06	to 32+93.42	100	50	14-16

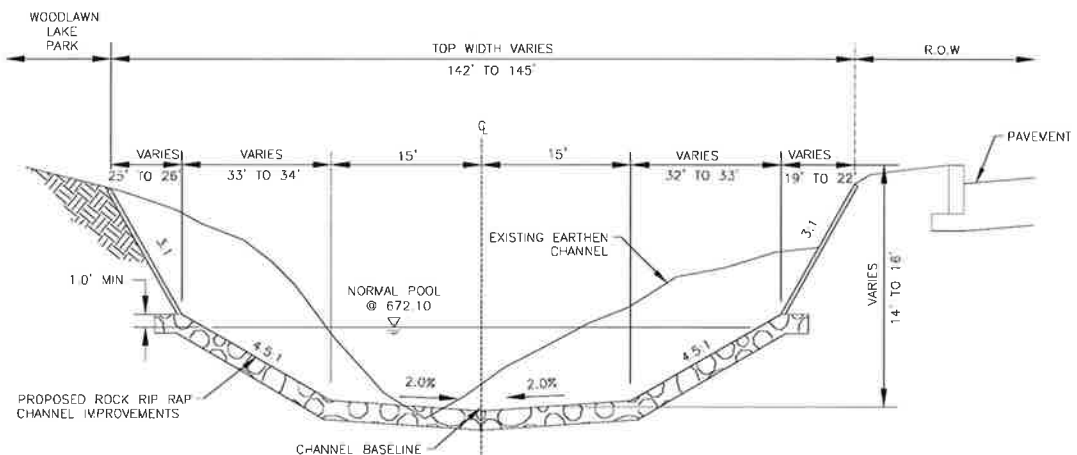


TYPICAL CONCRETE TRANSITION SECTION
N.T.S.
STA. 31+93.65 TO STA. 32+45.06

NOTE:
1. EROSION CONTROL MATTING SHALL BE PROPEX LANDLOK® 300 WITH DUCKBILL ANCHORS OR APPROVED EQUAL.



TYPICAL ROCK RIPRAP SECTION
N.T.S.
STA. 31+12.45 TO STA. 31+93.65



TYPICAL EARTHEN SECTION
N.T.S.
STA. 29+65.26 TO STA. 30+18.68



Stephanie D. Blew
8-28-2012

NO	DATE	ADDENDUM	DESCRIPTION	REVISIONS	DWGCHK
1	8/28/2012	4			SDB

AECOM AECOM TECHNICAL SERVICES, INC.
6800 PARK TEN BLVD., SUITE 180 SOUTH
SAN ANTONIO, TEXAS 78213
WWW.AECOM.COM
TBPE REG. NO. F-3580

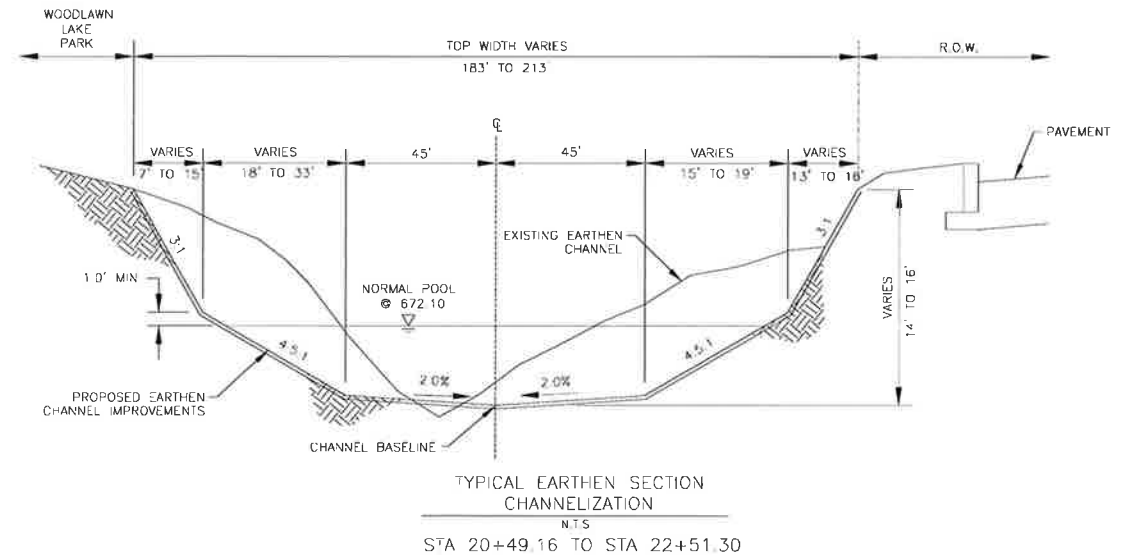
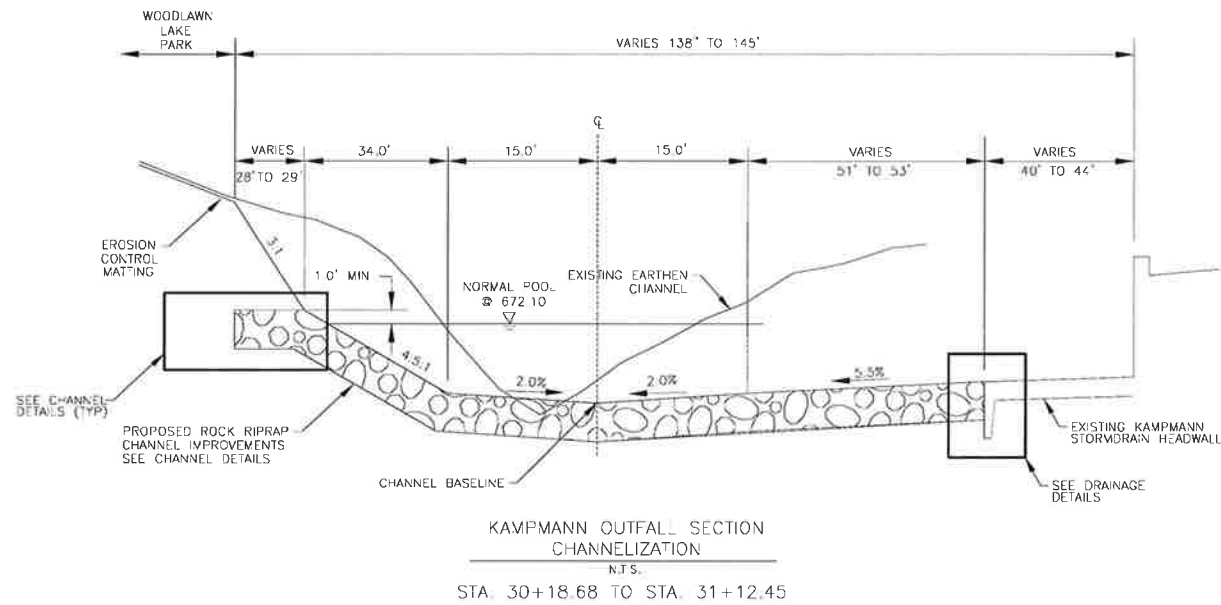
CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
SEALING CHANNEL PHASE I

TYPICAL CHANNEL SECTIONS I
1 OF 3

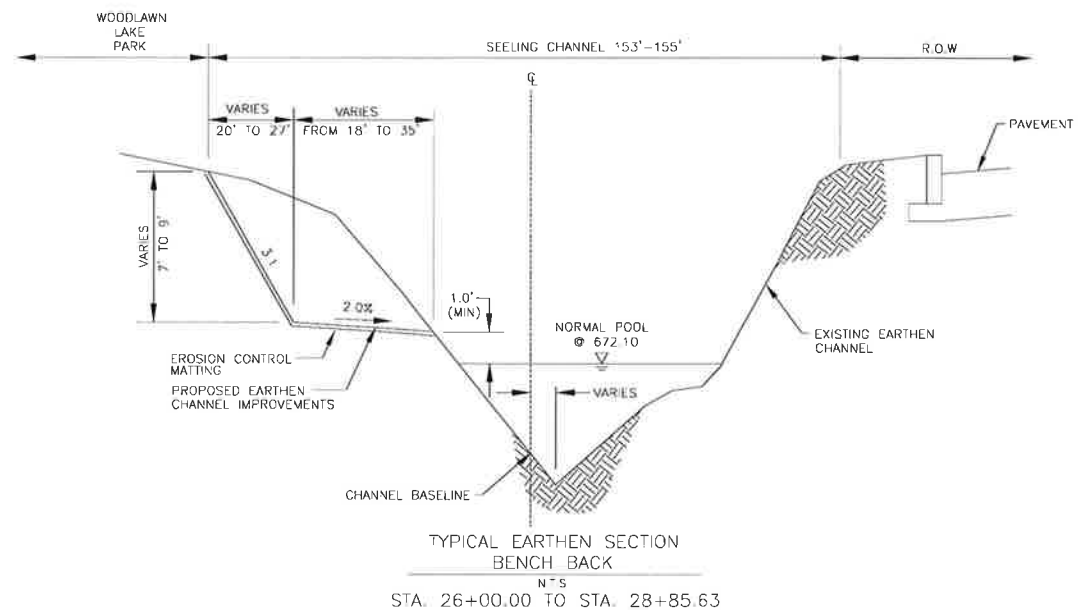
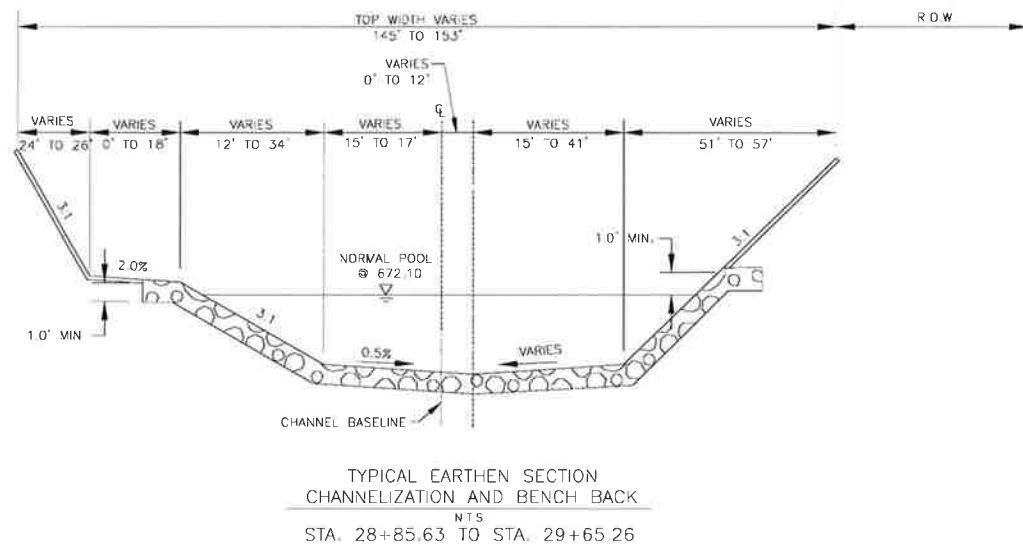
DRWN BY	BM	DSGN BY	MJP	CHKD BY	SDB	SHEET NO.	20
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Plotted on: 8/28/2012 5:07:24 PM

Design Filename: P:\60145866 Sealing Channel (Midcrest)\ADMIN\000_CAD\VCV Sealing TYP Drainage Sections.dgn



NOTE:
1. EROSION CONTROL MATTING SHALL BE PROPEX LANDLOK® 300 WITH DUCKBILL ANCHORS OR APPROVED EQUAL.



8-28-2012
Stephanie D. Blew

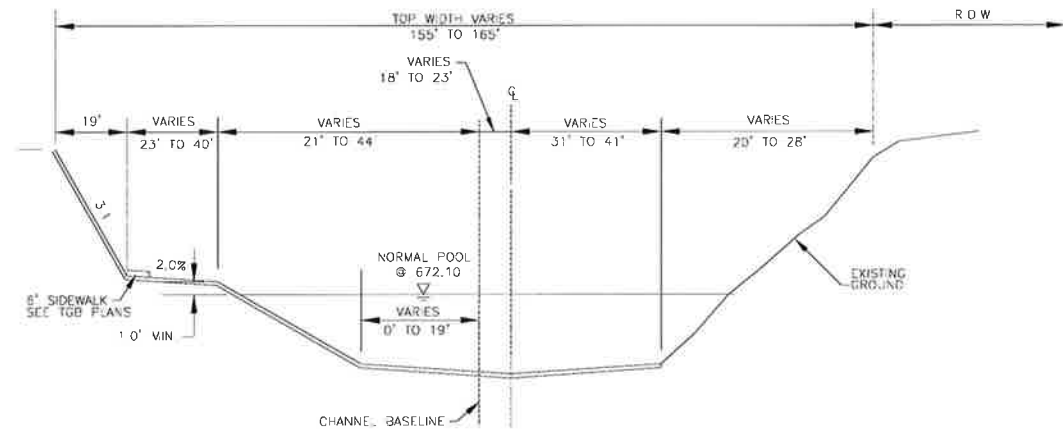
NO.	DATE	ADDENDUM #4	DESCRIPTION	REVISIONS	SDB
					DWGCHK

AECOM AECOM TECHNICAL SERVICES, INC.
6800 PARK TEN BLVD., SUITE 180 SOUTH
SAN ANTONIO, TEXAS 78213
WWW.AECOM.COM
1BPE REG. NO. F-3580

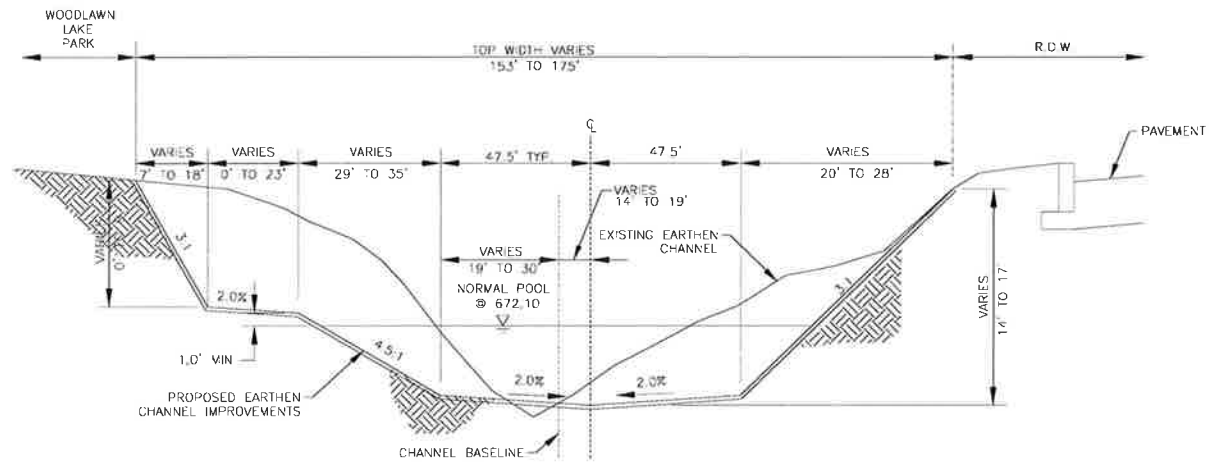
CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
SEALING CHANNEL PHASE I

TYPICAL CHANNEL SECTIONS II

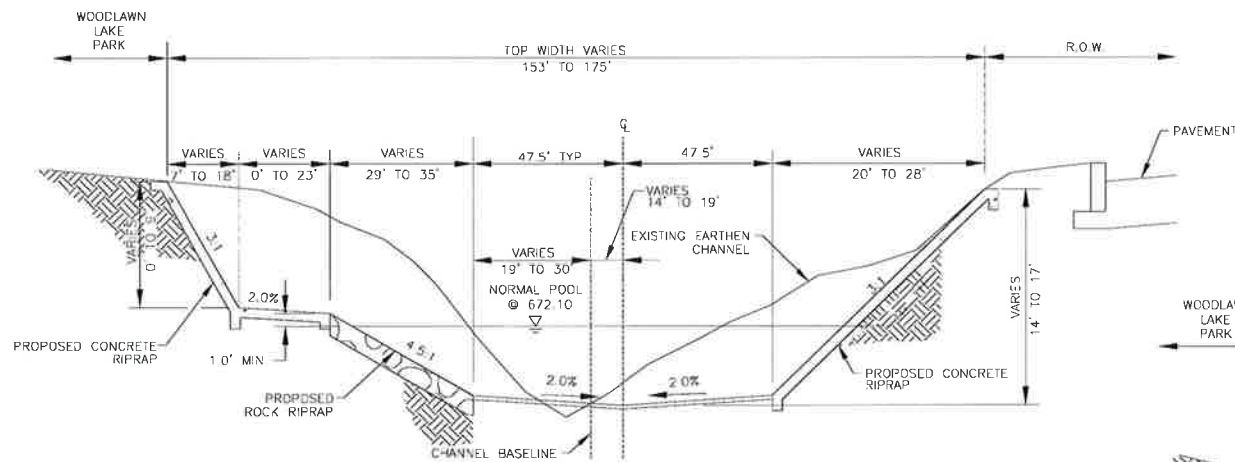
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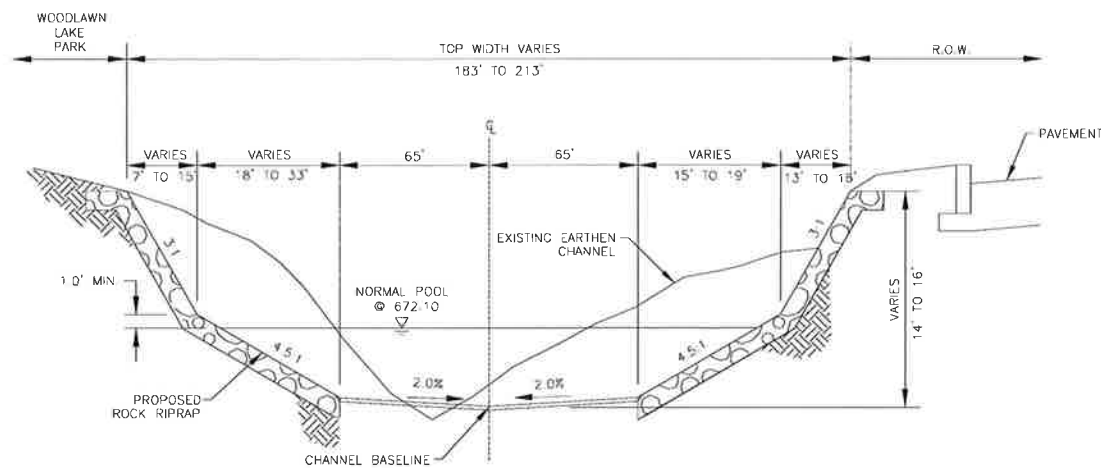
TYPICAL EARTHEN SECTION
CHANNELIZATION AND BENCH BACK
NTS
STA 23+58.00 TO STA 26+00.00



TYPICAL EARTHEN SECTION
CHANNELIZATION AND BENCH BACK
NTS
STA 22+51.30 TO STA 23+58.00



TYPICAL EARTHEN SECTION
CHANNELIZATION AND BENCH BACK
NTS
STA 23+03.50 TO STA 23+81.50



TYPICAL EARTHEN SECTION
CHANNELIZATION
NTS
STA 21+13.16 TO STA 21+44.27

NOTE:
1. EROSION CONTROL MATTING SHALL BE
PROPEX LANDLOK® 300 WITH DUCKBILL ANCHORS
OR APPROVED EQUAL.



Stephanie D Blew

NO	DATE	ADDENDUM	DESCRIPTION	REVISIONS	SDB
1	8/28/2012	4	ADDENDUM		DWCCHK

AECOM
AECOM TECHNICAL SERVICES, INC.
6800 PARK TEN BLVD, SUITE 180 SOUTH
SAN ANTONIO, TEXAS 78213
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TBPE REG. NO. F-3580

CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
SEALING CHANNEL PHASE I

TYPICAL CHANNEL SECTIONS III

PROJECT NO.	60184822	DATE	JULY 2012
DRAWN BY	BM	DESIGN BY	MJP
CHECK BY	SDB	SHEET NO.	22

Design Filename: P:\60145866 Seeling Channel (Midcrest)\ADMIN\000_CAD\C\CS\gennotes\021.dgn
Plotted on: 8/29/2012 8:01:56 AM

SWE NOTES

- 1. THE CONTRACTOR SHALL NOTIFY STORM WATER ENGINEERING AT LEAST 24 HOURS PRIOR TO THE INSTALLATION OF ANY DRAINAGE FACILITY WITHIN A FLOODPLAIN, DRAINAGE EASEMENT OR STREET RIGHT-OF-WAY NOT INDICATED ON THE CONSTRUCTION PLANS. ANY DAMAGE TO EXISTING DRAINAGE SYSTEMS, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR AT HIS EXPENSE. THE CONTRACTOR SHALL NOTIFY STORM WATER ENGINEERING AT 210-207-8052 AS SOON AS CONFLICTS WITH UTILITIES ARE ENCOUNTERED OR ANY DRAINAGE SYSTEM IS DAMAGED DURING CONSTRUCTION.
- 2. CONSTRUCTION SPOILS WILL NOT BE ALLOWED TO BE DEPOSITED ANYWHERE WITHIN A DRAINAGE EASEMENT, RIGHT-OF-WAY, OR FLOODPLAIN WITHIN THE LIMITS OF THE PROJECT AND SHALL BE DISPOSED OFFSITE IN COMPLIANCE WITH CURRENT APPLICABLE REGULATIONS.
- 3. NO STRUCTURE, FENCES, WALLS, LANDSCAPING, OR OTHER OBSTRUCTIONS THAT IMPEDE DRAINAGE SHALL BE PLACED WITHIN THE LIMITS OF THE DRAINAGE EASEMENTS SHOWN ON THE CONSTRUCTION DOCUMENTS.
- 4. EIGHTY-FIVE PERCENT OF THE EARTHEN CHANNEL SURFACE AREA MUST HAVE ESTABLISHED VEGETATION BEFORE THE CITY OF SAN ANTONIO WILL ACCEPT THE CHANNEL FOR MAINTENANCE.

ENGINEER'S NOTES

- 1. ALL STORM DRAIN PIPE SHALL BE RCP CLASS III WITH RUBBER GASKET JOINTS CONFORMING TO ASTM C361 OR C443 UNLESS OTHERWISE NOTED ON THE DRAWINGS. ALL PRECAST BOX CULVERTS SHALL BE ASTM C1433 WITH RUBBER GASKETS FOR SEALING THE JOINTS.
- 2. ALL TRENCH EXCAVATION SHALL BE IN ACCORDANCE WITH THE U.S. DEPARTMENT OF OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION. THE CONTRACTOR IS REMINDED OF HIS RESPONSIBILITY TO PROVIDE A TRENCH SAFETY PROTECTION PLAN PRIOR TO THE START OF CONSTRUCTION. THIS DOCUMENT SHALL BE SUBMITTED TO THE CITY AT THE PRECONSTRUCTION CONFERENCE.
- 3. LOCATIONS OF ALL UNDERGROUND UTILITIES IN THE VICINITY OF STORM DRAIN CONSTRUCTION SHALL BE UNCOVERED TO DETERMINE EXACT LOCATIONS PRIOR TO THE START OF CONSTRUCTION. THIS SHALL BE A NO SEPARATE PAY ITEM.
- 4. ALL JOINTS, SEALS, CONNECTIONS, AND MODIFICATIONS NECESSARY FOR PROPER INSTALLATION OF STORM DRAINAGE SYSTEMS SHALL BE SUBSIDIARY TO CMP, RCP AND BOX CULVERT BID ITEMS.
- 5. ENERGY DISSIPATION BLOCKS SHALL BE INCLUDED IN THE PRICE BID FOR CONCRETE RIPRAP AND ARE A NON SEPARATE PAY ITEM.
- 6. CONTROL POINTS FOR MANHOLES AND JUNCTION BOXES SHALL BE THE CENTER OF THE STRUCTURE BASE.
- 7. CONTROL POINTS FOR CURB INLETS SHALL BE THE MIDPOINT OF THE FACE OF CURB FOR CURB INLET ONLY (EXCLUDING INLET EXTENSIONS). TOP OF CURB INLET ELEVATIONS SHALL MATCH THE PROPOSED TOP OF CURB ELEVATIONS.
- 8. ALL RCP STORM DRAINAGE PIPE SHALL BE INSTALLED WITH A CLASS 'C' EMBEDMENT UNLESS OTHERWISE SHOWN ON THE DRAWINGS. ALL BACKFILL AND EMBEDMENT SHALL BE SUBSIDIARY TO COSA BID ITEM 401.
- 9. MANHOLE RISERS ARE SUBSIDIARY TO JUNCTION BOX, MANHOLE AND INLET, BID ITEMS. ALL MANHOLE COVERS SHALL BE BOLTED.
- 10. ALL HORIZONTAL BENDS AND PIPE TO PIPE ANGLED CONNECTIONS IN RCP PIPE SHALL BE CONSTRUCTED USING PRE-FABRICATED BENDS AND FITTINGS.
- 11. THE LOCATIONS OF DRIVEWAYS, STEPS, ETC., AS SHOWN ON THESE PLANS ARE APPROXIMATE. ACCURATE LOCATIONS SHALL BE DETERMINED AT THE TIME OF CONSTRUCTION AFTER CONSULTATION WITH THE PROPERTY OWNERS.
- 12. ALL REINFORCING STEEL AND DOWEL BARS IN PAVEMENT SHALL BE SUPPORTED AND MAINTAINED AT THE CORRECT CLEARANCES BY THE USE OF BAR CHAIRS OR OTHER APPROVED SUPPORT.
- 13. CONTRACTOR SHALL REPLACE ALL BENCHMARKS REMOVED OR MODIFIED BY CONSTRUCTION.
- 14. CONTRACTOR SHALL RECONSTRUCT ALL EXISTING DRIVEWAYS TO THE LIMITS SHOWN OR TO THE NEAREST CONSTRUCTION JOINT IN THE EXISTING DRIVEWAYS AS DIRECTED BY THE ENGINEER.
- 15. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR AND MAINTAIN ALL EROSION CONTROL FACILITIES BEFORE, DURING, AND AFTER ALL CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
- 16. FLEXIBLE BASE SHALL BE TYPE D GRADE 1.
- 17. FOR PEDESTRIAN SAFETY, THE CONTRACTOR SHALL INSTALL ORANGE PLASTIC CONSTRUCTION FENCING (4 FEET TALL MINIMUM) AROUND ALL OPEN EXCAVATIONS OR AS DIRECTED BY THE ENGINEER. SUCH FENCING SHALL NOT OBSTRUCT SIGHT LINES OF THE TRAVELING PUBLIC. THIS SHALL BE A NO SEPARATE PAY ITEM.
- 18. THE CONTRACTOR SHALL COVER OR TEMPORARILY REMOVE EXISTING SIGNS THAT CONFLICT WITH THE SUGGESTED TRAFFIC CONTROL PLANS OR THE INTENT THEREOF BUT DO NOT REQUIRE RELOCATION DUE TO PHYSICAL CONFLICTS. SAID SIGNS SHALL NOT BE RELOCATED UNTIL TEMPORARY SIGN SUPPORTS HAVE BEEN INSTALLED TO ALLOW FOR THE IMMEDIATE RELOCATION OF ANY SUCH SIGNS. THIS SHALL BE A NO SEPARATE PAY ITEM.
- 19. THE PROJECT IS LOCATED WITHIN THE FEMA 100 YEAR FLOODPLAIN, AND IS SUBJECT TO PERIODIC INUNDATION. CONTRACTOR SHALL NOT STOCKPILE ANY CONSTRUCTION MATERIALS WITHIN THE 100 YEAR FLOODPLAIN, AND SHALL BE RESPONSIBLE FOR CLEARING ANY CONSTRUCTION MATERIALS FROM ADJACENT WATERWAYS AFTER A FLOOD EVENT. REPAIR OF ANY DAMAGES TO DRAINAGE STRUCTURES IN THE PROJECT AREA, OR DOWNSTREAM CAUSED BY CONSTRUCTION DEBRIS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 20. ALL BEARINGS AND COORDINATES ARE REFERENCED TO THE TEXAS STATE PLANE COORDINATE SYSTEM NAD-83 THE SOUTH CENTRAL ZONE. GRID TO SURFACE FACTOR: 1.000169. COORDINATES PROVIDED ARE SURFACE COORDINATES.

- 21. CONTRACTOR SHALL BE RESPONSIBLE FOR BRACING & PROTECTION OF UTILITY POLES DURING ALL PHASES OF CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY A MINIMUM OF 72 HOURS IN ADVANCE OF CONSTRUCTION IN THE VICINITY OF THEIR POLES SO THEY CAN VERIFY THE POLES ARE BEING PROPERLY BRACED, PROTECTED, AT NO DIRECT PAYMENT.
- 22. PREPARATION OF ROW SHALL INCLUDE ALL ROW AREAS WITHIN THE PROJECT, WHOLE LOT PURCHASE AREAS, DRIVEWAY AND LEAD WALK PENETRATION AREAS, SEELING CHANNEL, AND WOODLAWN LAKE PARK AREA WITHIN THE DAYLIGHT AND PROJECT LIMITS. PREPARATION OF ROW SHALL INCLUDE REMOVAL OF EXISTING CONCRETE, RETAINING WALLS, CONCRETE COLUMNS, BRIDGE CLASS CULVERTS, THE S. JOSEPHINE-TOBIN DR. BRIDGE, SLOPE PAVING, FLUMES, GUARDRAILS, AND STORM DRAIN CONDUIT, EXISTING PARK TRAIL, REMOVAL & SALVAGE OF WOODEN BOLLARS AND OTHER AREAS AS REQUIRED FOR THE DIVERSION AND CARE OF WATER.
- 23. ALL COORDINATES ARE TAKEN AT EDGE OF PAVEMENT OR BACK OF VERTICAL CURBS UNLESS NOTED OTHERWISE.
- 24. ALL RADII DIMENSIONS ARE TO FACE OF CURB.
- 25. CONTRACTOR SHALL PROTECT ALL EXISTING FENCE AND GATES ALONG ROW LINES UNLESS OTHERWISE NOTED ON PLANS
- 26. FILL MATERIAL SHALL BE FREE OF VEGETATION AND DEBRIS, AND SHALL BE UNIFORMLY COMPACTED TO A MINIMUM 95% TEX-113-E AT -2% TO +2% PERCENTAGE POINTS ABOVE THE SOILS' OPTIMUM MOISTURE CONTENT UNTIL FINAL COMPACTION, DETERMINED BY THAT TEST. FILL MATERIAL SHALL BE SPREAD IN LOOSE LIFTS NOT EXCEEDING 8 INCHES THICK, ON-SITE SOILS, FREE OF ANY UNUITABLE MATERIAL, ROCK OR CONCRETE GREATER THAN 4 INCHES IN ANY DIRECTION, MAYBE USED AS GENERAL SITE FILL.
- 27. FENCE AND GATE ITEMS SHALL INCLUDE CONNECTIONS TO EXISTING FENCING NOT IMPACTED BY THE PROJECT AND INCLUDE REPLACEMENT OF MOW STRIPS IF PRESENT ALONG THE EXISTING FENCELINE. ADDITIONAL CORNER POSTS MAY BE REQUIRED FOR CONNECTION, AND ARE A NO SEPARATE PAY ITEM. CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF EXISTING FENCING AND MATERIAL NOT SUITABLE FOR REUSE OR IN EXCESS OF WHAT IS REQUIRED FOR RELOCATION. THIS SHALL BE A NO SEPARATE PAY ITEM.
- 28. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING IRRIGATION SYSTEMS IN THE PROJECT AREA. ADJUSTMENTS TO EXISTING IRRIGATION SYSTEMS IMPACTED BY THE PROJECT SHALL BE NO SEPARATE PAY ITEM.
- 29. CONTRACTOR SHALL SALVAGE EXISTING LANDSCAPING PLANTS AND MATERIALS ON PRIVATE PROPERTY TO THE MAXIMUM EXTENT PRACTICABLE.
- 30. TREE LESS THAN 6" IN DIAMETER ARE NOT SHOWN ON PLANS.
- 31. THE REPAIR AND MAINTENANCE OF THE DIVERSION AND CARE OF WATER SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE A NO SEPARATE PAY ITEM.
- 32. THE CONTRACTOR IS ENCOURAGED TO REUSE ON-SITE EXCAVATED SOILS TO THE MAXIMUM EXTENT PRACTICABLE.
- 33. EROSION CONTROL MATTING SHALL BE PROPEX LANDLOK 300 WITH DUCKBILL ANCHORS OR APPROVED EQUAL.
- 34. LIME STABILIZED SUBGRADE SHALL CONTAIN 3% HYDRAUTED LIME BY WEIGHT, IF DRY PLACEMENT OF LIME IS USED DURING CONSTRUCTION, AN ADDITIONAL 1% OF LIME SHOULD BE ADDED.
- 35. CONTRACTOR SHALL ENSURE FENCES DISTURBED BY CONSTRUCTION ARE CLOSED AT THE END OF EACH WORKING DAY WITH TEMPORARY CONSTRUCTION FENCING AT A MINIMUM. THIS SHALL BE A NON-SEPARATE PAY ITEM.
- 36. CONTRACTOR SHALL REFER TO THE DIVERSION AND CARE OF WATER SPECIFICATION FOR ADDITIONAL REQUIREMENTS RELATED TO THE MANAGEMENT OF STORMWATER DURING CONSTRUCTION.
- 37. IN ACCORDANCE WITH THE SPECIAL ENVIRONMENTAL SPECIFICATIONS, CONTRACTOR IS ENCOURAGED TO REUSE SOILS EXCAVATED FROM THE AREA OF CONCERN TO FORM THE PROPOSED LANDSCAPE BERMS SHOWN ON THE OVERALL LANDSCAPE GRADING PLAN, PROVIDED THE FILL MATERIAL IS PLACED NO CLOSER THAN 10 FEET FROM PROPOSED PAVEMENT AND SIDEWALK.
- 38. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE APPEARANCE OF ALL CONCRETE STRUCTURES UNTIL FINAL ACCEPTANCE OF THE PROJECT.

UTILITY LEVEL OF QUALITY TABLE

Utility	Level Quality	
	Horizontal Designation	Vertical Designation
Storm Drain Mains	C	A
Wastewater Mains	A	A
Water Distribution Mains*	C	C
Natural Gas Mains*	B	C
Overhead Electrical Lines	C	n/a
Underground Electrical Lines	B	D
Overhead Telecommunication Lines	C	n/a
Underground Telecommunication Line	B	C
Water Service Lines	C	C
Wastewater Service Lines	C	C
Gas Service Lines	D	D

*Water distribution mains and natural gas mains are at level A quality in point elevations near channel crossings locations only.



Stephanie D. Blew
8-29-2012

NO	8/28/2012	ADDENDUM #4	SDB
	DATE	DESCRIPTION	DWGCHK
		REVISIONS	
AECOM AECOM TECHNICAL SERVICES, INC. 6800 PARK TEN BLVD., SUITE 180 SOUTH SAN ANTONIO, TEXAS 78213 WWW.AECOM.COM TBPE REG. NO. F-3580			
CITY OF SAN ANTONIO CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT SEELING CHANNEL PHASE I			
GENERAL NOTES 2 OF 2			
PROJECT NO.:	60184822	DATE:	JULY 2012
DRWN. BY:	BM	DSGN. BY:	MJP
CHKD. BY:	SDB	SHEET NO.	24

	104.1	105.1	107.1	108.1	108.2	200.1	205.4b	306.1	307.1	503.1	505.12	507.2	507.4	507.5	515.1	516.1	516.2	520.1	554.1	432 2021	SP. 2
SHT. NO.	STREET EXCAVATION	CHANNEL EXCAVATION	EMBANKMENT (FINAL)(DENS CONT)(TY C)	LIME TREAT. SUBGRADE (6" COMPACTED DEPTH)	LIME	FLEXIBLE BASE (6" COMPACTED DEPTH)	HOT MIX ASPHALTIC PAVEMENT, TYPE D (2" COMPACTED DEPTH)	STRUCTURAL EXCAVATION	CONCRETE STRUCTURE (RETAINING WALLS)	PORTLAND CEMENT CONCRETE DRIVEWAY	CONCRETE RIPRAP (8" THICK)	CHAINLINK WIRE FENCE (6 HIGH)	GATE- PEDESTRIAN	GATE- VEHICULAR (20 FEET)	TOPSOIL (6")	BERMUDA SODDING	ST AUGUSTINE SODDING	HYDROMULCH	EROSION CONTROL MATTING **	RIPRAP (STONE PROTECTION)(18 IN)	SOLDIER PILE & LAGGING
	CY	CY	CY	SY	TON	SY	SY	CY	CY	SY	SY	LF	EA	OPENING	CY	SY	SY	SY	SY	CY	SF
146	---	---	---	---	---	---	---	5962	1446	---	---	710	---	---	---	---	---	---	---	---	9318
147	---	---	---	---	---	---	---	9319	1485	---	---	610	---	---	---	---	---	---	---	---	585
148	---	2674	7	---	---	---	---	8940	1473	---	1228	511	---	---	---	---	---	---	574	352	---
149	---	4798	---	---	---	---	---	---	---	---	116	---	---	---	---	---	---	---	2818	513	---
150	4461	7204	1365	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3774	140	---
151	---	4108	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	764	150	---
174	441	---	211	---	---	---	---	618	---	---	---	---	4	1	---	---	---	---	---	---	---
175	555	---	203	341	3	305	305	---	---	72	---	---	---	---	471	705	705	1410	---	---	---
176	78	---	158	---	---	---	---	---	---	---	---	---	---	---	514	769	769	1538	---	---	---
Total	5535	18783	1944	341	3	305	305	24839	4404	72	1344	1831	4	1	985	1474	1474	2948	7930	1155	9903

SUMMARY OF DRAINAGE QUANTITIES

CONT. SUMMARY OF DRAINAGE QUANTITIES

CONT. SUMMARY OF DRAINAGE QUANTITIES

Δ	8/28/2012	ADDENDUM •4		
NO	DATE	DESCRIPTION REVISIONS		DWGCHK

<p>CITY OF SAN ANTONIO</p> <p>CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT</p> <p>SEELING CHANNEL PHASE I</p>

2 OF 4

Plotted on: 8/28/2012 5:05:05 PM

Design Filename: P: 60145866 Seeing Channel (Midcrest) ADMIN 000 CAD C CS Summary of Bid Items.dgn
Plotted on: 8/28/2012 5:04:25 PM

SUMMARY OF BRIDGE QUANTITIES

	400 2001	400 2005	400 2020	416 2002	416 2003	420 2003	420 2004	420 2029	420 2033	420 2034	420	425 2014	425 2016	425 2017	428 2001	432 2001	432 2021	450 2203	450 2166	454 2001	459 2015	459 2017	496 2010	SP. 3
SHT. NO.	STRUCT EXCAV	CEM STABIL BKFL	CEMENT STABILIZED SAND	DRILLED SHAFT (24")	DRILLED SHAFT (30")	CL C CONC (ABUT)	CL C CONC (BENT)	CL S CONC (SLAB)	CL S CONC (APPR SLAB)	CL S CONC (BRIDGE SDWLK)	CL C CONC (MONUMENT)	PRESTR CONC SLAB BEAM (4SB12)	PRESTR CONC SLAB BEAM (4SB15)	PRESTR CONC SLAB BEAM (5SB15)	CONC SURF TREATMENT (CLASS II)	RIPRAP (CONC) (4IN)	RIPRAP (STONE PROTECTION)(18IN)	RAIL (TY T221)(MOD)	RAIL (TY C223)	SEALED EXPANSION JOINT (4 IN)(SEJ-A)	GABIONS (PVC)(GALV)(3FTX3FT)	GABIONS (PVC)(GALV)(3FTX1.5FT)	REMOV STR (BRIDGE)	CONTECH PEDESTRIAN BRIDGE
	CY	CY	CY	LF	LF	CY	CY	CY	CY	CY	CY	LF	LF	LF	SY	CY	CY	LF	LF	LF	CY	CY	EA	EA
240	---	---	35.8	---	260	49.0	19.7	49.8	38.4	23.1	---	808	---	---	558.7	---	---	---	184	100	---	---	---	---
247	---	---	38.6	---	400	52.4	22.7	79.1	109	50.2	---	---	1279	---	949.66	---	---	---	217	110	---	---	---	---
224a	---	89	---	1308	---	47.3	74.0	268.4	136	93.3	10.3	---	192	2112	1525	46.7	80	392.3	---	140	114	18	---	---
236a	50	50	---	334	---	21.8	13.6	44.4	0	0	12	---	---	---	---	---	---	---	---	---	80	17	1	1
TOTAL	50	139	74.4	1642	660	170.5	130.0	441.7	283.4	166.6	22.3	808	1471	2112	3033.36	46.7	80	392.3	401	350	194	35	1	1

SUMMARY OF SIGNING & PAVEMENT MARKINGS QUANTITIES

	509.1	531.03	531.06	531.13	531.14	531.44	531.51	531.57	531.62	531.68	531.69	531.7	531.71	531.86	531.87	531.88	531.89	535.1	535.4	535.7	535.8	535.9
SHT. NO.	METAL BEAM GUARD RAIL	R1-1 STOP (30") (HIGH DENSITY)	R2-1 SPEED LIMIT (24"x30") (HIGH DENSITY)	R3-7 LEFT LANE MUST TURN LEFT OR RIGHT LANE MUST TURN RIGHT	R3-8 LANE-USE CONTROL (30"x30") (HIGH DENSITY)	W16-7 DIAGONAL ARROW SIGN	W11-2 PED CROSSING	9 INCH (229mm) STREET NAME, BLOCK NUMBER (VARIES x9") (HIGH DENSITY)	W16-9 AHEAD	R3-17 BIKE LANE	R3-17aP AHEAD PLAQUE	R3-17bP END PLAQUE	R4-4 BEGIN RIGHT TURN YIELD TO BIKES	R8-3a No PARKING	R7-201P TOW AWAY ZONE PLAQUE	W8-20 WATCH FOR WATER ON ROAD	RS-031 BUS STOP	4 INCH WIDE YELLOW LINE	8 INCH WIDE WHITE LINE	24 INCH WIDE WHITE LINE	RIGHT WHITE ARROW	LEFT WHITE ARROW
	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	LF	LF	LF	EA	EA
269	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	306	36	226	1	---
270	725	3	1	---	1	---	---	6	---	1	---	---	---	1	1	---	---	893	424	---	---	---
271	114	1	1	---	---	---	---	2	---	1	---	---	---	2	2	1	1	1064	1080	212	---	---
272	---	---	2	---	---	1	3	---	2	3	---	---	---	1	1	1	2	1463	1290	142	---	---
273	76	2	2	1	---	---	---	4	---	3	2	1	1	4	4	---	---	1394	1080	---	1	1
Total	915	6	6	1	1	1	3	12	2	8	2	1	1	8	8	2	3	5119	3910	579	2	1

CONT. SUMMARY OF SIGNING & PAVEMENT MARKINGS QUANTITIES

	535.12	535.16	535.17	535.18	537.8	544 2001	545 2028	658 2238	658 2259	658 2267	658 2315	658 2316	658 2339	658 2383
SHT. NO.	WORD "ONLY"	STRAIGHT WHITE ARROW BICYCLE FACILITY	BICYCLE RIDER SYMBOL	SHARROW SYMBOL (BICYCLE AND CHEVRON)	TRAFFIC BUTTON (TYPE II A-A)	GUARDRAIL END TREATMENT (INSTALL)	CRASH CUSH ATTEN (INSTL)(QUAD)(N)	INSTL DEL ASSM (D-SW)SZ 1(FLX)SRF(BI)	INSTL DEL ASSM (D-SW)SZ 1(FLX)SZ 1(TYC)CTB(BI)	INSTL DEL ASSM (D-SY)SZ 1(FLX)SRF	INSTL OM ASSM (OM-2Y)(WC) GND	INSTL OM ASSM (OM-2Z)(FLX) GND	INSTL OM ASSM (OM-2Y)(WC) GND (BI)	INSTL OM ASSM (OM-3R)(WC) GND
	WORD	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA
269	---	---	---	---	6	---	---	---	---	---	4	---	---	---
270	1	7	7	---	13	1	---	32	6	---	---	2	2	1
271	---	6	6	---	15	---	2	6	6	---	---	2	2	---
272	---	7	7	---	21	---	---	---	20	---	---	---	6	---
273	2	8	8	3	20	1	---	5	8	1	---	---	4	---
Total	3	28	28	3	76	2	2	43	20	21	4	4	14	1

SUMMARY OF TRAFFIC SIGNAL QUANTITIES

	618.1	618.1	620.1	680.2	682.4	684.1	688.2	694.1	694.2	694.4	694.6
SHT. NO.	CONDIUT TRENCHED 1-1/2 INCH PVC	CONDIUT ON POLE 1-1/2 INCH RMC	ELECTRICAL CONDUCTORS (NO 6) (BARE)	INSTALLATION OF HIGHWAY TRAFFIC SIGNALS (SYSTEM)	INSTALL PEDESTRIAN SIGNAL SECTION (12 INCH) LED (2IND)	TRAFFIC SIGNAL CABLES (TYPE A) (14 AWG) (9-CONDUCTOR)	PEDESTRIAN DETECTORS (2 INCH PUSH-BUTTON)	VIVDS PROCESSOR UNIT	VIVDS CAMERA ASSEMBLY	VIVDS SET-UP SYSTEM	VIVDS COMMUNICATIONS CABLE (COAXIAL)
	LF	LF	LF	EA	EA	LF	EA	EA	EA	EA	LF
275	30	150	120	1	8	550	8	4	4	1	380
Total	1	1	1	2826	2192	21164	159	5730	2238	963	686

8/28/2012

ADDENDUM #4

SDB

NO

DATE

DESCRIPTION

REVISIONS

DWGCHK

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AECOM TECHNICAL SERVICES, INC.
6800 PARK TEN BLVD., SUITE 180 SOUTH
SAN ANTONIO, TEXAS 78213
WWW.AECOM.COM
TBPE REG. NO. F-3580

CITY OF SAN ANTONIO

CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

SEEING CHANNEL PHASE I

SUMMARY OF BID ITEMS

3 OF 4

PROJECT NO.: 60184822

DATE: JULY 2012

DRWN. BY: BM

DSGN. BY: MJP

CHKD. BY: SDB

SHEET NO. 27

Design Filename: P:\60145866 Seeling Channel (Midcrest)\ADMIN\000_CAD\C\Summary of Bid Items.dgn

SUMMARY OF LANDSCAPING QUANTITIES

NEW PEDESTRIAN BRIDGE								
ITEM	PB.1	PB.2	PB.3	PB.4	PB.5	PB.6	PB.7	PB.8
DESC.	Asphalt Jogging Trail (Includes Concrete Ribbon Curb and Drainage Gaps)	Concrete Banding on Pedestrian Bridge	Concrete Walk for Pedestrian Bridge	Pedestrian Bridge Bega Lights Complete	Removable Bollard Complete	Relocation of Existing Bega Pole Lighting Complete	Entry Column Complete (Pedestrian Bridge)	Ornamental Steel Railing on Culvert Complete
UNIT	SF	SF	SF	EA	EA	EA	EA	LF
QTY	4,572	852	1,789	22	6	4	4	44

NEW VEHICULAR BRIDGE & MONUMENT												
ITEM	VB.1	VB.2	VB.3	VB.4	VB.5	VB.6	VB.7	VB.8	VB.9	VB.10	VB.11	VB.12
DESC.	Limestone Stone Veneer	Cast Stone Cap	Aluminum Light House Enclosure and Entry Monument Tower Light	Entry Tower Monument & Entry Wall w/ Foundation Complete	Aluminum Letters on Entry Wall w/ Steel Backing	Ornamental Steel Railing on Walls Complete	Vehicular Bridge Arch. Columns Complete	Entry Column Complete (Monument Walls)	LED Light In Letters	Bega Pole Light Mounted on Vehicular Bridge Arch. Column Complete	Entry Landscape Beds w/ Main Entry Plants	Irrigation System Complete
UNIT	FF	LF	EA	EA	EA	LF	EA	EA	EA	EA	LS	LS
QTY	9,944	1,988	1	1	16	1,907	8	2	16	4	1	1

LANDSCAPE MITIGATION													
ITEM	LM.1	LM.2	LM.3	LM.4	LM.5	LM.6	LM.7	LM.8	LM.9	LM.10	LM.11	LM.12	LM.13
DESC.	Fertilizer	Landscape Planting - 2" Trees	Landscape Planting - 4" Trees	Landscape Planting - 6" Trees	Channel Plants	New Planting Watering / Gator Bags / Water Truck	Plant and Turf Maintenance (90 Days)	Bermuda Sod - w/ 2" Composted Topdressing	Bermuda Hydromulch - w/ 2" Composted Top dressing	Hydromulch- Drainfield Mix 2" Composted Top dressing	Existing Tree Protection	Existing Tree Fertilization and Pruning	Existing Cypress Tree Milling
UNIT	LS	EA	EA	EA	LS	LS	LS	SF	SF	SF	LF	EA	EA
QTY	1.00	102	36	48	1	1	1	6,355	215,675	61,054	1,579	2	5

ALTERNATE #1 - PEDESTRIAN BRIDGE UPGRADES					
ITEM	PB.9	PB.10	PB.11	PB.12	PB.13
DESC.	Pedestrian Bridge Safety Railing Upgrade to Horizontal Cables	Pedestrian Bridge Steel Inset	Pedestrian Bridge Steel Tube	Pedestrian Bridge Steel Frame	Glass Lithocrete Banding
UNIT	LS	LF	LF	LF	SF
QTY	1	480	480	480	852

ALTERNATE #2 - CONCRETE PARK TRAIL		
ITEM	PI.1	PI.2
DESC.	Concrete Trail	Retaining Wall Complete (concrete, cap, french drain, NDS pipe & stone veneer)
UNIT	SF	LF
QTY	8,486	87

ALTERNATE #3 - PARK TRAIL LIGHTING		
ITEM	PI.3	PI.4
DESC.	Under Vehicular Bridge Light	New Bega Pole Lights
UNIT	EA	EA
QTY	1	5

ALTERNATE #4 - PARK SHADE STRUCTURE AND PICNIC AREAS						
ITEM	PI.5	PI.6	PI.7	PI.8	PI.9	PI.10
DESC.	Pavilion- (Prefabricated)	BBQ Grill	ADA Picnic Tables	Trash or Recyclable Receptacles - CoSA Parks & Recreation Standard	Pedestal Drinking Fountain (w/ Pet Fountain)	Pavilion Lights
UNIT	EA	EA	EA	EA	EA	EA
QTY	1	4	4	3	1	2

SUMMARY OF LANDSCAPING-ELECTRICAL QUANTITIES

NEW PEDESTRIAN BRIDGE								
ITEM	PBE.1	PBE.2	PBE.3	PBE.4	PBE.5	PBE.6	PBE.7	PBE.8
DESC.	*8 THHN WIRE, CONDUIT & JUNCTION BOXES	TRENCHING & BACKFILL	DEMOLITION	*10 THHN WIRE, CONDUIT & JUNCTION BOXES	RISER DIAGRAM	LIGHTING INSTALLED	PANEL -TERMINATIONS	GENERAL CONDITIONS
UNIT	LF	LF	HR	LF	LS	EA	LS	LS
QTY	1576	282	24	788	1	11	1	1

NEW VEHICULAR BRIDGE & MONUMENT					
ITEM	VBE.1	VBE.2	VBE.3	VBE.4	VBE.5
DESC.	*8 THHN WIRE, CONDUIT & JUNCTION BOXES	TRENCHING & BACKFILL	*10 THHN WIRE, CONDUIT & JUNCTION BOXES	LIGHTING INSTALLED	GENERAL CONDITIONS
UNIT	LF	LF	LF	EA	LS
QTY	2682	282	1,341	21	1

ALTERNATE #3 - PARK TRAIL LIGHTING					
ITEM	TE.1	TE.2	TE.3	TE.4	TE.5
DESC.	*8 THHN WIRE, CONDUIT & JUNCTION BOXES	TRENCHING & BACKFILL	*10 THHN WIRE , CONDUIT & JUNCTION BOXES	LIGHTING INSTALLED	GENERAL CONDITIONS
UNIT	LF	LF	LF	EA	LS
QTY	150	75	75	6	1

ALTERNATE #4 - PARK SHADE STRUCTURE AND PICNIC AREAS					
ITEM	PE.1	PE.2	PE.3	PE.4	PE.5
DESC.	*8 THHN WIRE, CONDUIT & JUNCTION BOXES	TRENCHING & BACKFILL	*10 THHN WIRE, CONDUIT & JUNCTION BOXES	LIGHTING INSTALLED	GENERAL CONDITIONS
UNIT	LF	LF	LF	EA	LS
QTY	86	43	43	2	1

8/28/2012	ADDENDUM #4			SDB
8/14/2012	REVISED QUANTITIES			
NO	DATE	DESCRIPTION		DWGCHK
		REVISIONS		

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SAN ANTONIO, TEXAS 78213
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TBPE REG. NO. F-3580

CITY OF SAN ANTONIO			
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT			
SEELING CHANNEL PHASE I			
SUMMARY OF BID ITEMS			
4 OF 4			
PROJECT NO.: 60184822		DATE: JULY 2012	
DRWN. BY: BM	DSGN. BY: MJP	CHKD. BY: SDB	SHEET NO. 27a

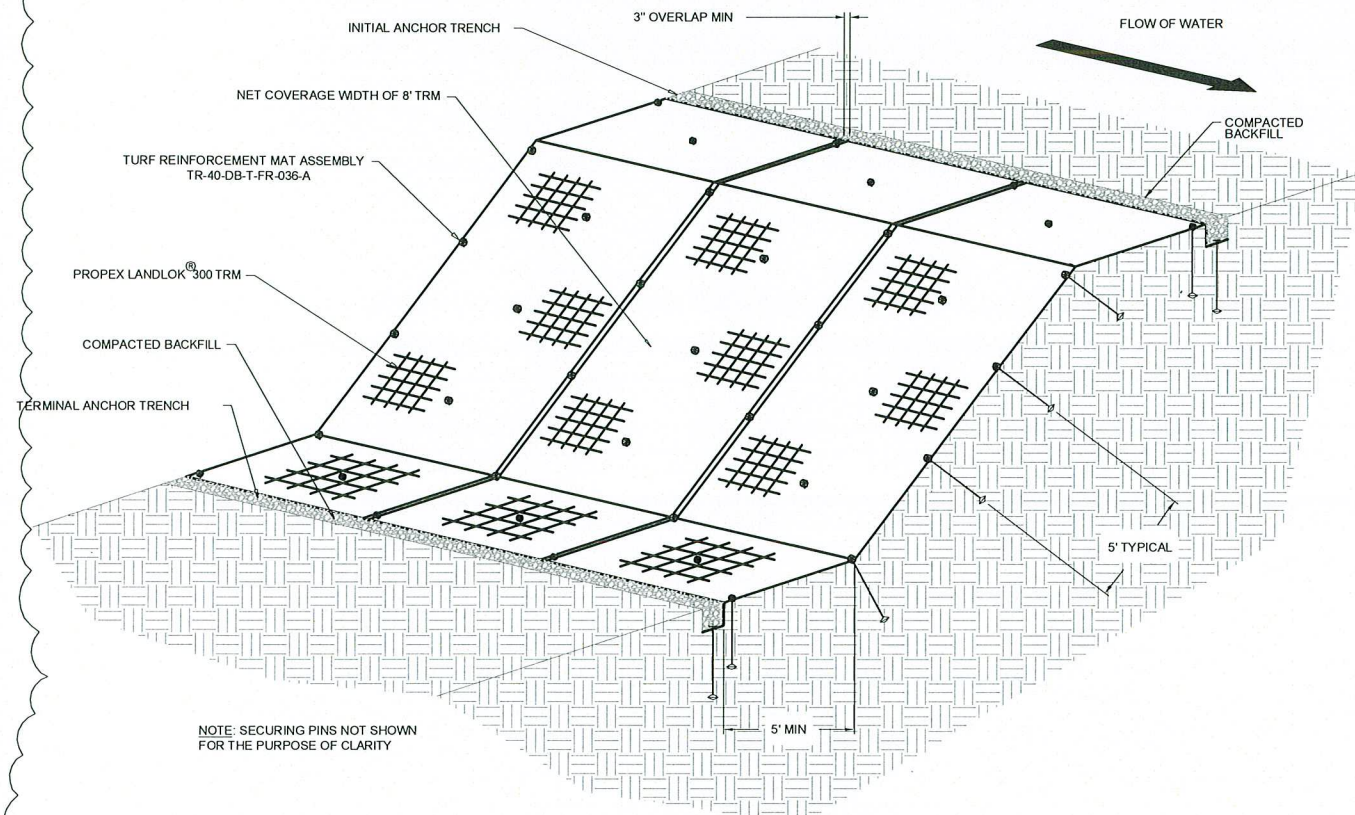


FIGURE 1: INSTALLATION OF PROPEX LANDLOK® 300

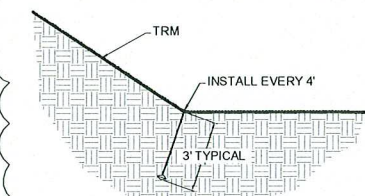


FIGURE 6: BREAK IN SLOPE INTERFACE
DETAIL FOR CHANNELS

NOTE: TRM SHOULD BE SHINGLED IN THE
DIRECTION OF THE DOWN SLOPE AND FLOW

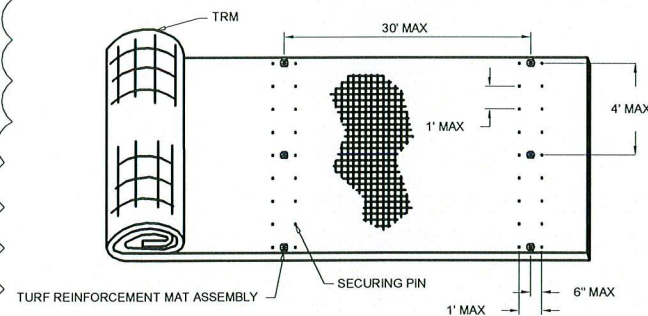


FIGURE 7: SECURING PIN DETAIL

1.5 in DIAMETER
STEEL WASHER
24"
0.20 in
DIAMETER STEEL
NOTE: LONGER PINS MAY BE REQUIRED FOR LOOSER SOILS.

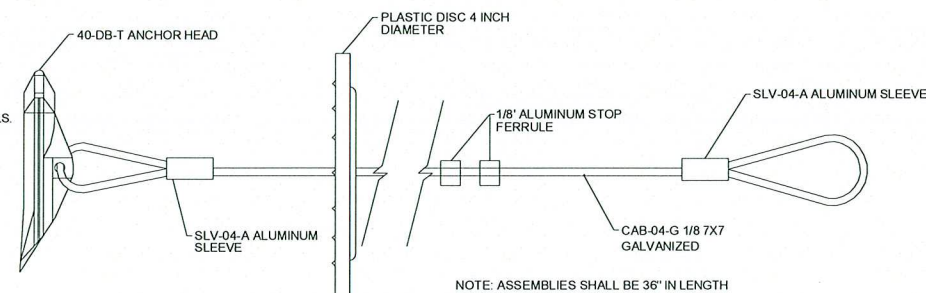


FIGURE 8: DUCK BILL ANCHORS/ TURF REINFORCEMENT MAT ASSEMBLY
TR-40-DB-T-FR-036-A

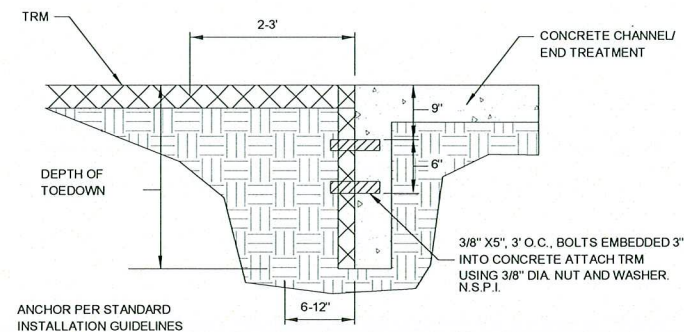


FIGURE 11: CONCRETE/TRM CONNECTION DETAIL

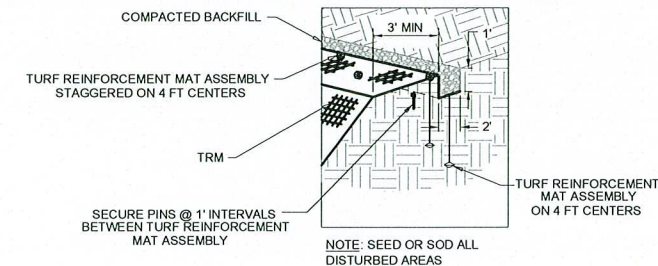
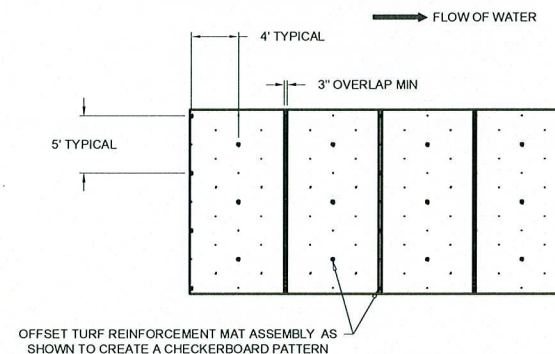


FIGURE 2: INITIAL ANCHOR TRENCH



LEGEND:
• OFFSET TURF REINFORCEMENT MAT ASSEMBLY AS SHOWN TO CREATE A CHECKERBOARD PATTERN
• SECURING PIN

FIGURE 4: ANCHOR / PIN PATTERN AND LONGITUDINAL EDGE DETAIL

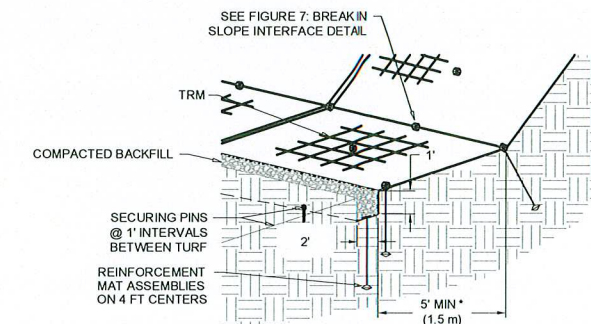


FIGURE 3: TERMINAL ANCHOR TRENCH

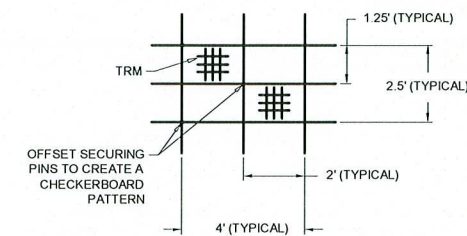


FIGURE 5: PIN PATTERN DETAIL

NOTES:
1) A MANUFACTURER'S DESIGNATED REPRESENTATIVE SHALL BE ON SITE FOR INSTALLATION ASSISTANCE
2) TRM IS TO BE SOIL FILLED WITH 1" OF TOPSOIL AND VEGETATED BY APPLYING THE RIGHT MIXTURE OF SEED, AND SOIL AMENDMENTS WITH A FLEXIBLE GROWTH MEDIUM, PROTECTED BY A LIGHT WEIGHT EROSION CONTROL BLANKET
3) TRM INSTALLED BELOW AN ELEVATION OF 673 SHALL INCLUDE A LAYER OF MIRAFI 140N GEOTEXTILE UNDER THE PROPEX LANDLOK® 300, NO SEPERATE PAY ITEM.

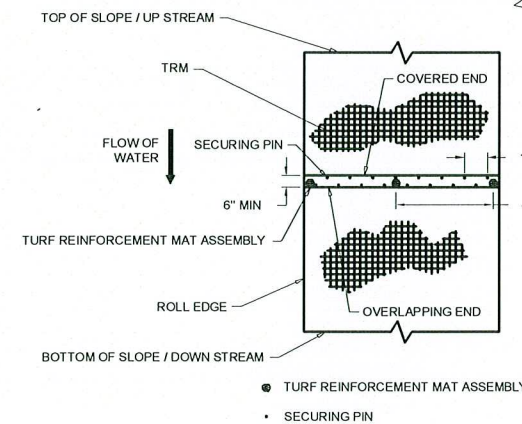


FIGURE 9: OVERLAP AT ROLL END DETAIL



8-29-2012
Stephanie D Blew

NO	DATE	DESCRIPTION	REVISIONS	SDB	DWG/CHK
1	8/29/12	ADDENDUM #4			

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CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

SEEKING CHANNEL PHASE I
EROSION CONTROL PRODUCT
STANDARD DETAILS & NOTES

PROJECT NO.:	60184822	DATE:	JULY 2012
DRWN. BY:	M.G.	DSGN. BY:	SDB
CHKD. BY:	SDB	SHEET NO.	173

SUMMARY OF ESTIMATED QUANTITIES - S. JOSEPHINE-TOBIN DR																	
DESCRIPTION	0400-2005	0416-2002	0420-2003	0420-2004	0420-2029	0420-2033	0420-2034	420	0425-2016	0425-2017	0428-2001	0432-2001	0432-2021	0450-2203	0454-2001	0459-2015	0459-2017
	CEM STABIL BKFL	DRILL SHAFT (24 IN)	CL C CONC (ABUT)	CL C CONC (BENT)	CL S CONC (SLAB)	CL S CONC (APPR SLAB)	CL S CONC (BRIDGE SDWLK)	CL C CONC (MONUMENT)	PRESTR CONC SLAB BEAM (4SB15)	PRESTR CONC SLAB BEAM (5SB15)	CONC SURF TREAT (CLASS 1)	RIPRAP (CONC) (4 IN)	RIPRAP (STONE PROTECTION) (18 IN)	RAIL (TY 221) (MOD)	SEALED EXP JOINT (4 IN) (SEJ-A)	GABIONS (PVC) (GALV) (3FT x 3FT)	GABIONS (PVC) (GALV) (3FT x 1.5FT)
	CY	LF	CY	CY	CY	CY	CY	CY	LF	LF	SY	CY	CY	LF	LF	CY	CY
PRESTR CONC BEAM UNIT (SPANS 1-4)					268.4	136.0	93.3	10.3	192.00	2,112.00	1,525			347.8	140	114	18
ABUTMENTS 1 & 5	89	612	47.3									46.7	80.0	44.5			
BENTS (2 - 4)		696		74.0													
TOTAL	89	1,308	47.3	74.0	268.4	136.0	93.3	10.3	192.00	2,112.00	1,525	46.7	80.0	392.3	140	114	18



1	08/12	REVISED QTY	HM	WRB
NO	DATE	DESCRIPTION	DWG	CHK
REVISIONS				



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CITY OF SAN ANTONIO

CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

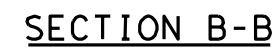
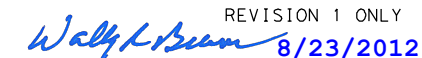
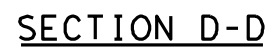
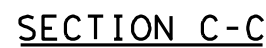
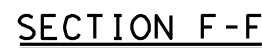
SEE LING CHANNEL PHASE 1

QUANTITY SUMMARY

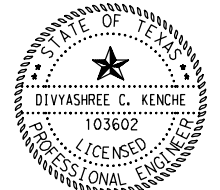
S JOSEPHINE-TOBIN DR.

1 OF 1

95% SUBMITTAL	PROJECT NO.:	60184822	DATE:	APRIL 2012
DRWN. BY: DAM	DSGN. BY: DCK	CHKD. BY: WRB	SHEET NO. 224AOF	



- ⑤ REINFORCING STEEL WEIGHT IS CALCULATED USING AN APPROXIMATE FACTOR OF 2.8 LBS/SF.
- ⑥ FABRICATOR SHALL ADJUST BEAM LENGTHS FOR BEAM SLOPES AS REQUIRED.
- ⑦ APPROXIMATION. HAUNCH BASED ON THEORETICAL CAMBER, DEAD LOAD DEFLECTION AND CONSTANT GRADE (I.E. NO VERTICAL CURVE).
- ⑧ INCREASE PROJECTION OF BAR U BY 10" TO ACCOMMODATE SIDEWALK. SEE T221(MOD) STANDARD FOR ADDITIONAL DETAILS.
- ⑨ REFER TO ELECTRICAL LIGHTING PLANS.



THE SEAL APPEARING ON THIS DOCUMENT
WAS AUTHORIZED BY DIVYASHREE C.
KENCHE 103602 ON 07/19/12.

1	08/12		REVISED CONC QTY	HM	WRB
NO	DATE		DESCRIPTION	DWG	CHK
			REVISIONS		

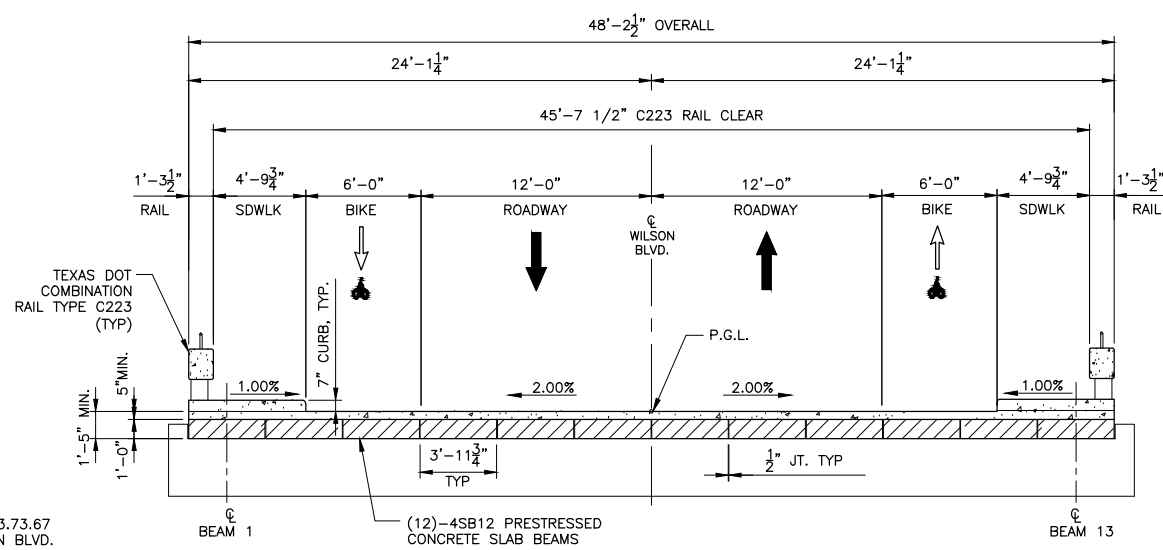
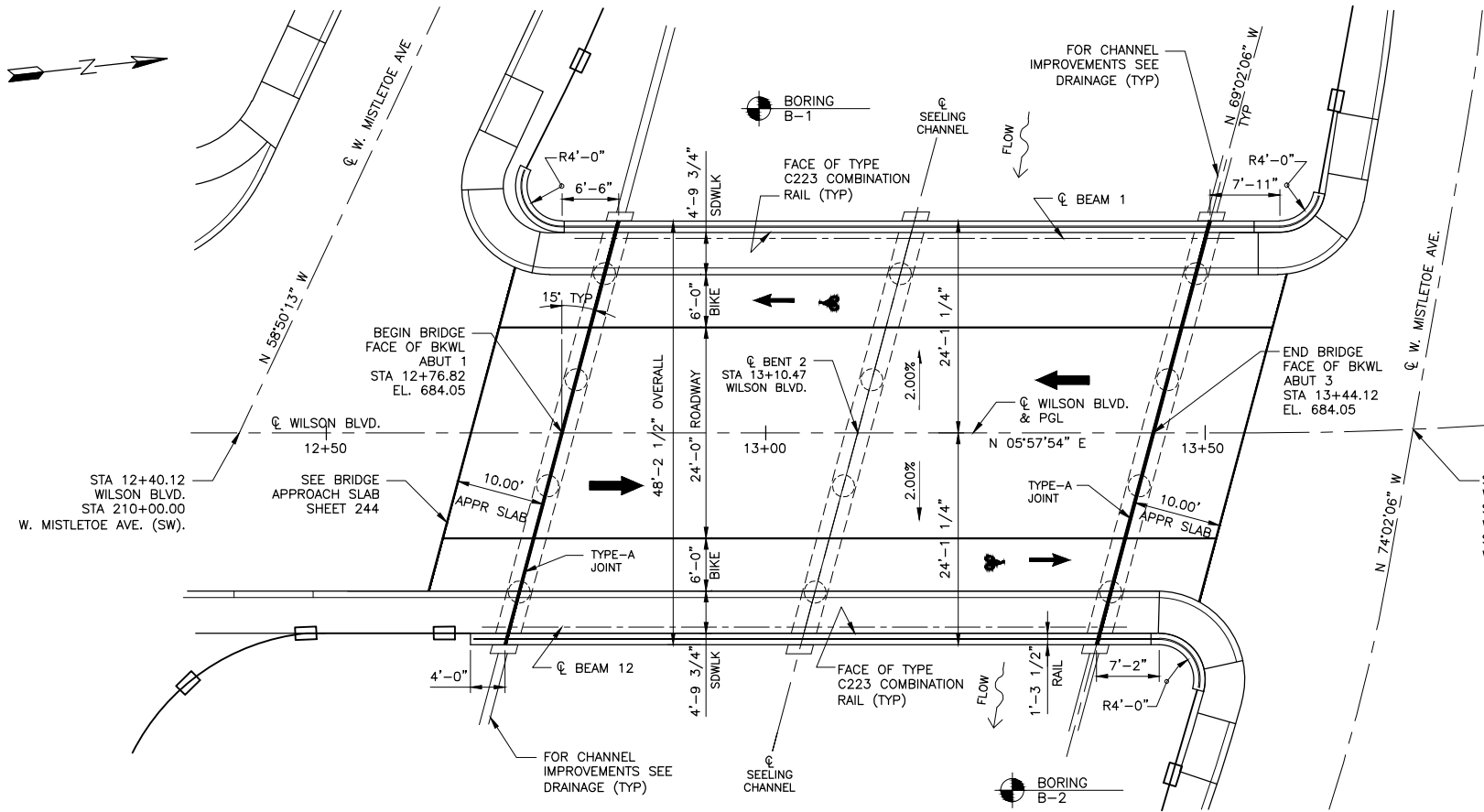
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SAN ANTONIO, TEXAS 78213
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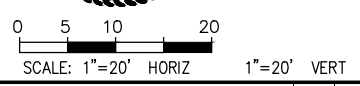
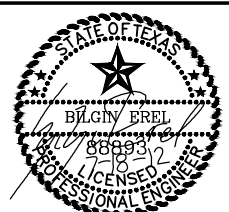
CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
SEELING CHANNEL PHASE 1

SLAB LAYOUT
S JOSEPHINE-TOBIN DR.



- NOTES:
- DESIGNED IN ACCORDANCE WITH 4TH EDITION AASHTO LRFD SPECIFICATIONS AND INTERIMS FOR HL-93 LOADING.
 - DESIGN SPEED = 35 MPH
ADT 2002 = 3,820
FUNCTIONAL CLASSIFICATION: LOCAL TYPE B
 - CONTRACTOR SHALL CALL TO VERIFY UTILITIES BEFORE DRILLING OPERATIONS.

HL93 LOADING



NO	DATE	DESCRIPTION	TT	JS	DWGCHK
1	8-27-12	REVISED PER REVISION No.1			

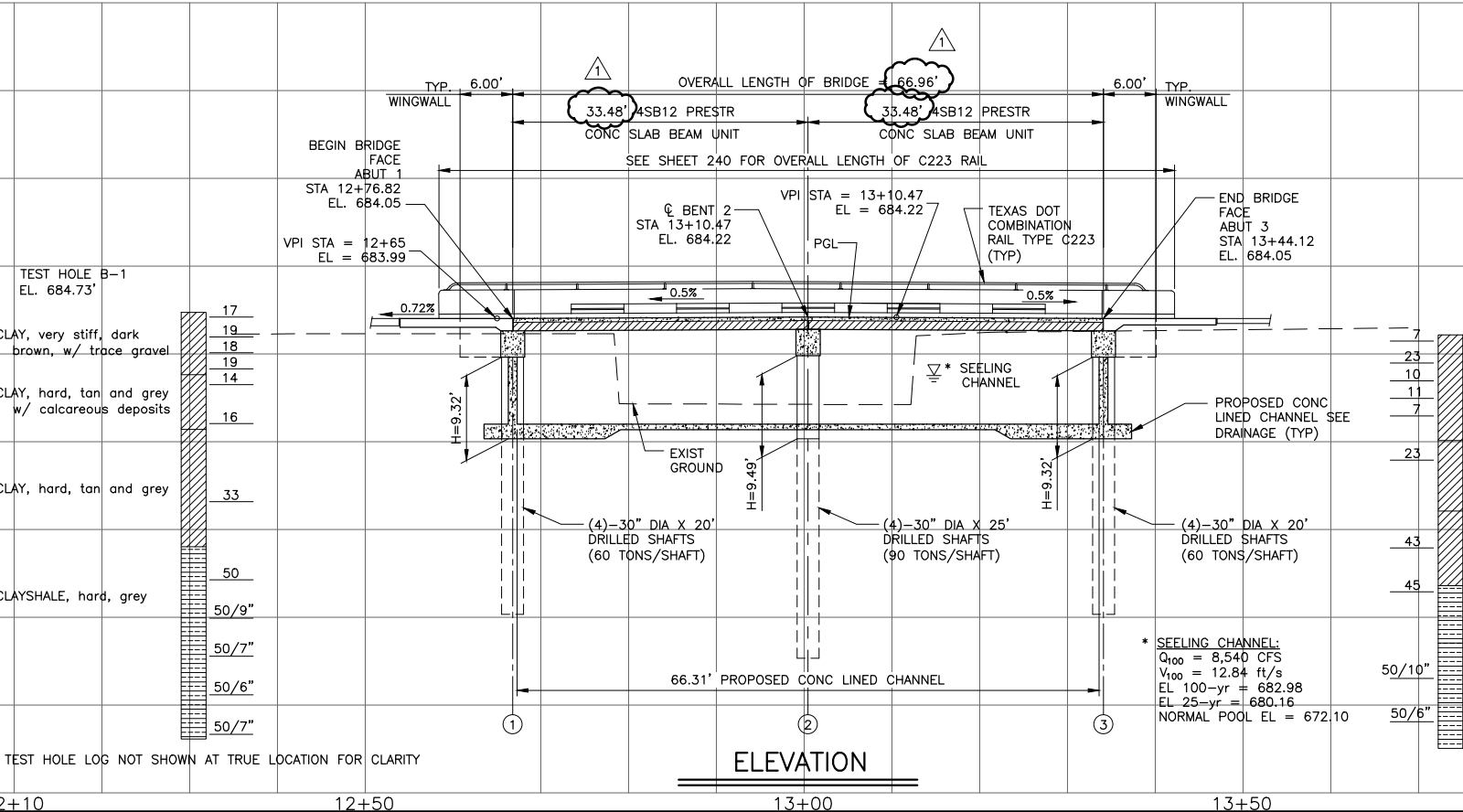
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SAN ANTONIO, TEXAS 78213
WWW.AECOM.COM
TBP REG. NO. F-3580

BRIONES
CONSULTING & ENGINEERING LTD.
8118 BROADWAY
SAN ANTONIO, TX 78209
TBP FIRM REG. NO. F-5028
(210) 828-1431
(210) 828 1432 fax

CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

SEALING CHANNEL PHASE I
BRIDGE LAYOUT
WILSON BLVD.

PROJECT NO.:	60184822	DATE:	JULY 2012
DRWN. BY:	DSM	DSGN. BY:	JVS
CHKD. BY:	BE	SHEET NO. 239 OF	461



** TEST HOLE LOG NOT SHOWN AT TRUE LOCATION FOR CLARITY

Design Filename: F:\Briones Engineering\10-161 Seeling Channel\ACAD\240 Wilson Bridge Estimated Quantities-Rev1.dwg
Plotted on: 2/24/2012 10:46:28 AM

SUMMARY OF ESTIMATED QUANTITIES											
BRIDGE ELEMENT	416 2003	420 2003	420 2004	420 2029	420 2033	420 2034	425 2014	428 2001	450 2166	400 2020	454 2001
	DRILLED SHAFTS (30")	CLASS "C" CONCRETE		REINF. CONCRETE SLAB	REINF. CONCRETE APPROACH SLAB	REINF. CONCRETE SIDEWALK	PRESTRESSED CONCRETE SLAB BEAMS (4SB12)	CONCRETE SURFACE TREATMENT (CLASS II)	RAILING (TYPE C223)	CEMENT STABILIZED SAND	EXPANSION JOINT (TYPE A)
		ABUT	BENT								
	LF	CY	CY	CY	CY	CY	LF	SY	LF	CY	LF
2 - ABUTMENTS	160	49.00									
1 - INTERIOR BENTS	100		19.74								
2 - 33.65' PRESTRESSED CONC SLAB BEAM UNIT				49.8		23.1	807.60	558.7	184.33		
MISCELLANEOUS					38.4					35.8	100
TOTAL	260	49.00	19.74	49.8	38.4	23.1	807.60	558.7	184.33	35.8	100*

1

1

1

* QUANTITY BASED ON 50 LF PER JOINT.

CONTROL ELEVATIONS			
LOCATION	ABUT 1	BENT 2	ABUT 3
TOP OF CAP (TYP. FULL LENGTH)	682.38	682.54	682.38
TOP OF DRILLED SHAFT (TYP. FULL LENGTH)	670.31	670.31	670.31

HL93 LOADING

STATE OF TEXAS

BLGIN EREL

88893

1/18/12

PROFESSIONAL ENGINEER

1	8-27-12	REVISED PER REVISION No.1	TT	JS
NO	DATE	DESCRIPTION	DWG	CHK
		REVISIONS		

AECOM

AECOM TECHNICAL SERVICES, INC.

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SAN ANTONIO, TEXAS 78213

WWW.AECOM.COM

TBPE REG. NO. F-3580

BRIONES

CONSULTING & ENGINEERING LTD.

8118 BROADWAY

SAN ANTONIO, TX 78209

TBPE FIRM REG. NO. F-5028

(210) 828-1431

(210) 828 1432 fax

BE

CITY OF SAN ANTONIO

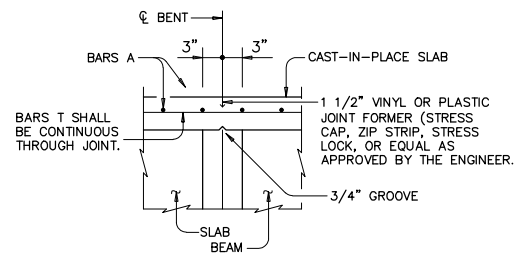
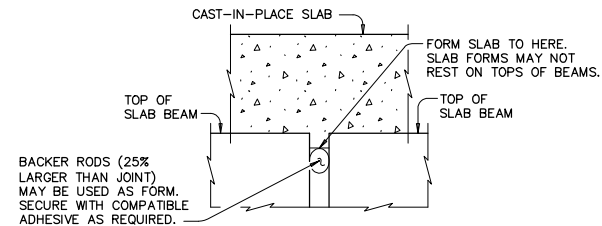
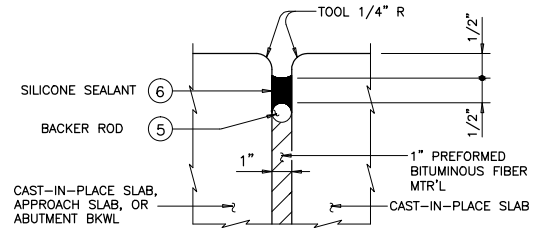
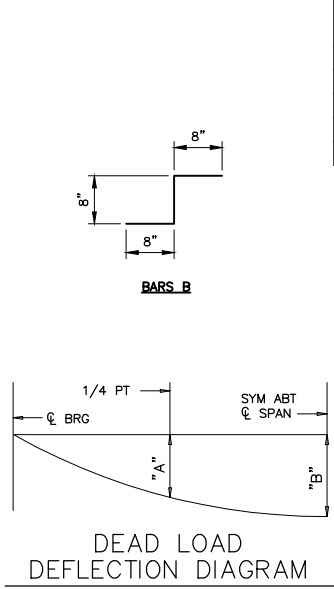
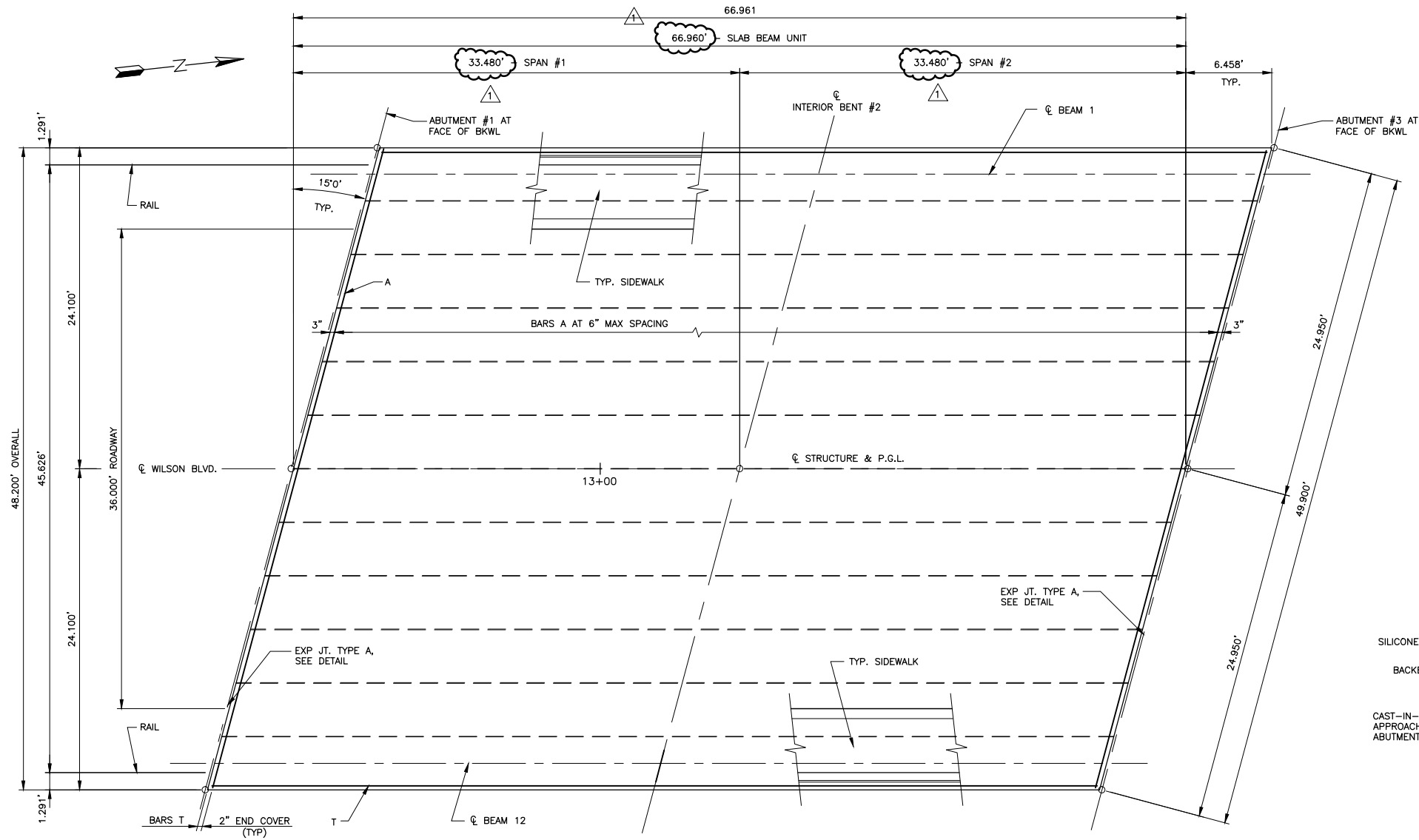
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

SEELING CHANNEL PHASE I

SUMMARY OF QUANTITIES

WILSON BLVD.

PROJECT NO.:	60184822	DATE:	JULY 2012
DRWN. BY:	DSM	DGN. BY:	JVS
CHKD. BY:	BE	SHEET NO. 240 OF	481



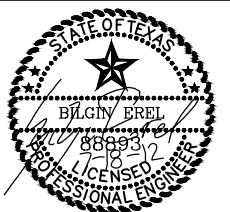
BAR TABLE	
BAR	SIZE
A	#5
B	#4
C	#4
T	#4

TABLE OF ESTIMATED QUANTITIES			
SPAN	PRESTRESSED CONCRETE SLAB BEAMS (4SB12)	CLASS "S" CONCRETE	① TOTAL REINF. STEEL
NO.	LF	CY	Lb
1	403.80	32.8	4,519
2	403.80	32.8	4,519
TOTAL	807.60	65.6	9,038

TABLE OF VARIABLE VALUES						
SPAN	BEAM NO.	BEAM TYPE	DEAD LOAD DEFLECTION			
			"A"	"B"	"X"	"Y"
1-2	1-3,10-12	4SB12	0.011'	0.015'	6"	1'-6"
1-2	4-9	4SB12	0.011'	0.015'	6"	1'-6"

- GENERAL NOTES:
- THE STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE 4TH EDITION AASHTO LRFD SPECIFICATIONS AND INTERIMS FOR HL-93 LOADING.
- CONCRETE COMPRESSIVE STRENGTH SHALL BE 4,000psi.
- ALL SLAB REINFORCEMENT SHALL BE Gr. 60ksi
- BARS LAPS WHERE REQUIRED SHALL BE AS FOLLOWS:
- UNCOATED - #4 = 1'-5"
- #5 = 1'-9"
- ① REINFORCING STEEL WEIGHT IS CALCULATED USING AN APPROXIMATE FACTOR OF 2.8 LBS/SF.
- ② BASED ON THEORETICAL BEAM CAMBER, DEAD LOAD DEFLECTIONS OF 5" CAST-IN-PLACE CONCRETE SLAB AND A CONSTANT GRADE.
- ③ FABRICATOR SHALL ADJUST BEAM LENGTHS FOR BEAM SLOPES AS REQUIRED.
- ④ WHERE SLAB IS CONTINUOUS OVER INTERIOR BENTS, BARS T SHALL BE CONTINUOUS THROUGH JOINT. SEE "CONTINUOUS SLAB DETAIL".
- ⑤ BACKER ROD SHALL BE 25% LARGER THAN JOINT OPENING AND SHALL BE COMPATIBLE WITH THE SEALANT; NO REACTION SHALL OCCUR BETWEEN THE ROD AND THE SEALANT.
- ⑥ SEALANT SHALL BE CLASS 7 SILICONE SEALANT. INSTALL WHEN AMBIENT TEMPERATURE IS BETWEEN 55°F AND 85°F AND RISING. ENGINEER TO DETERMINE ALLOWABLE HOURS FOR SEALANT APPLICATION.

HL93 LOADING



NO	DATE	DESCRIPTION	TT	JS	DWG	CHK
1	8-27-12	REVISED PER REVISION No.1				

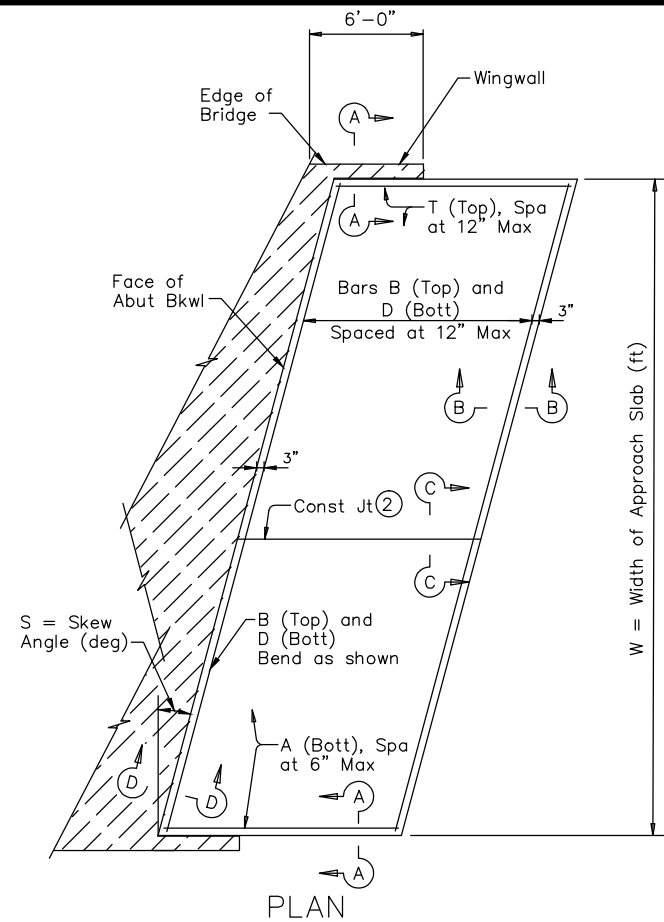
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CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

SEELING CHANNEL PHASE 1
PRESTRESSED CONCRETE SLAB
BEAM SPANS (TY SB12)
WILSON BLVD.

	PROJECT NO.: 60184822	DATE: JULY 2012
DRWN. BY: DSM	DSGN. BY: JVS	CHKD. BY: BE
SHEET NO. 243 OF 461		



(Showing Skewed Approach Slab)

- ① Flare Bars B and D in this region (1'-6" Max Spa, 3" Min Spa). Minimum flared bar length = 2'-6". Bend bars as necessary.
- ② Provide longitudinal construction joints that align with longitudinal construction joints in the bridge slab with bridges built in stages. Other longitudinal construction joints must receive approval of the Engineer.
- ③ See details elsewhere in plans for shoulder drain location and details.
- ④ For Contractor's information only.
- ⑤ Multiple piece tie bars are acceptable at longitudinal construction joints provided minimum laps shown are achieved.
- ⑥ See details elsewhere in plans for required cross-slope.
- ⑦ Place in accordance with Item 438.
- ⑧ Backer rod shall be 25% larger than joint opening and shall be compatible with the sealant.
- ⑨ Place 1/2" Preformed Bituminous Fiber Material between concrete railing and top of approach slab as shown when concrete railing projects over the approach slab.

BAR TABLE	
BAR	SIZE
A	#8
B	#5
D	#5
T	#5

APPROXIMATE QUANTITIES ⁽⁴⁾

Reinf steel weight = 8.5 Lbs/SF of Approach Slab

Area of Appr Slab = 498 (SF)

W = Width of Approach Slab (ft)

S = Skew Angle (deg)

GENERAL NOTES:

Construct approach slab in accordance with Item 420.

Concrete shall be Class "S" with a minimum compressive strength of 4,000 psi.

All reinforcing steel shall be Grade 60.

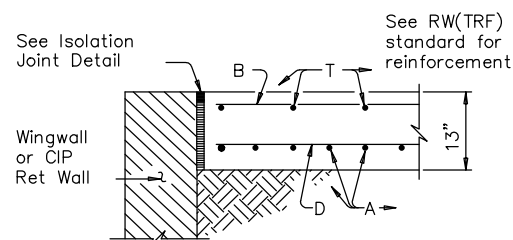
Construct the subgrade or subbase from the bridge for a minimum distance of 100 feet prior to the approach slab, unless otherwise indicated on the plans.

Compact and finish the subgrade or foundation for the approach slab to the typical cross-section and to the lines and grades shown on the plans.

Cure for 4 days using water or membrane curing per Item 307.

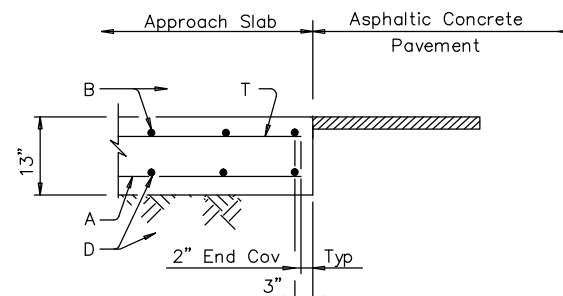
Sealant, backer rod and preformed bituminous fiber material is subsidiary to approach slab concrete.

Provide a 1" bondbreaker (asphaltic concrete pavement or asphalt stabilized base) between the approach slab and cement stabilized backfill or cement treated base. Other bondbreakers may be used if approved by the Engineer.

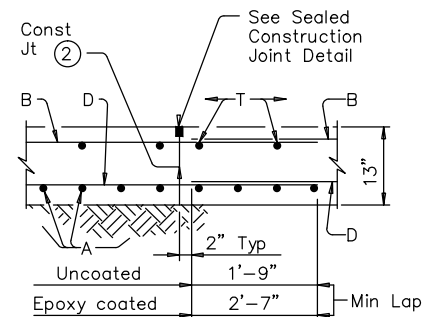


SHOWING WINGWALL OR
CIP RETAINING WALL

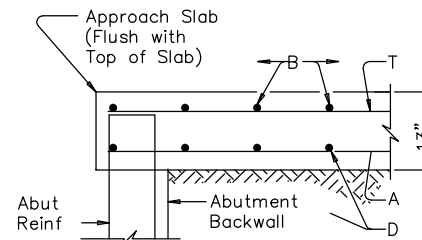
SECTION A-A



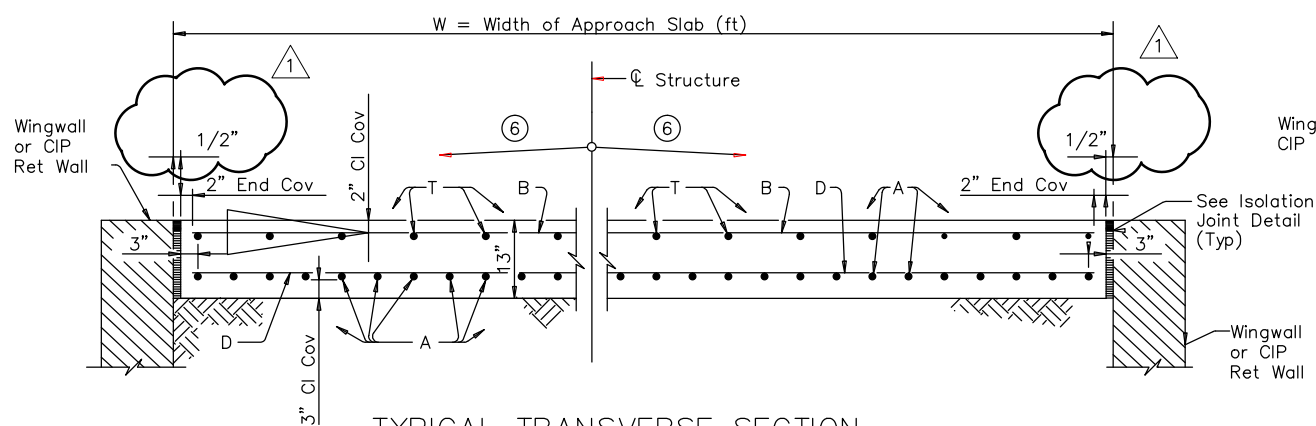
SECTION B-B



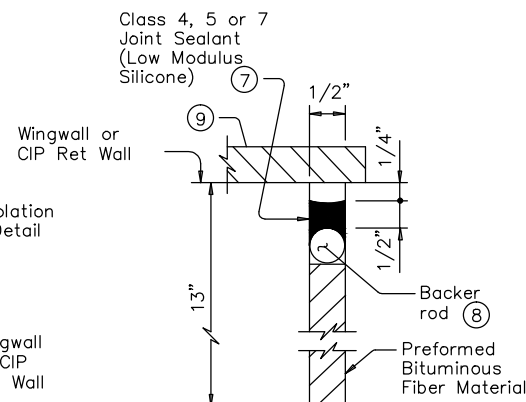
SECTION C-C ⑤



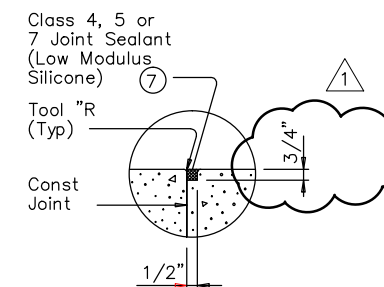
SECTION D-D



TYPICAL TRANSVERSE SECTION

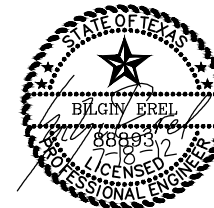


ISOLATION JOINT DETAIL



SEALED CONSTRUCTION JOINT DETAIL

HL93 LOADING



1	8-27-12	REVISED PER REVISION No.1	TT	JS
NO	DATE	DESCRIPTION	DWG	CHK
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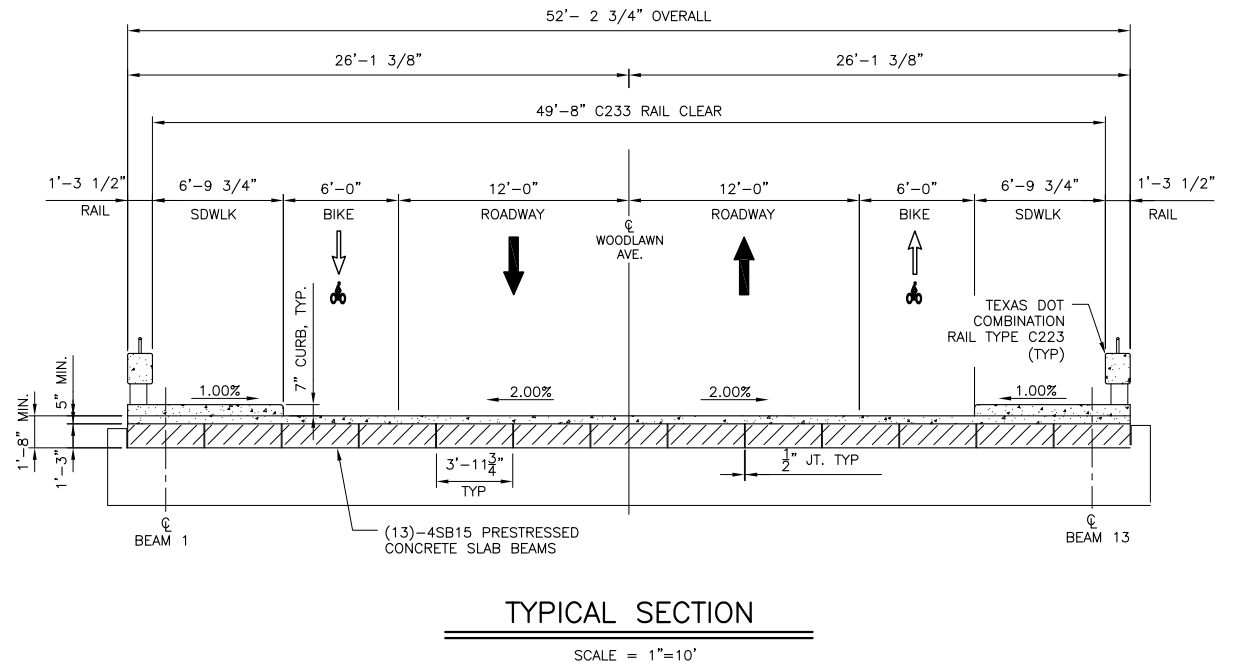
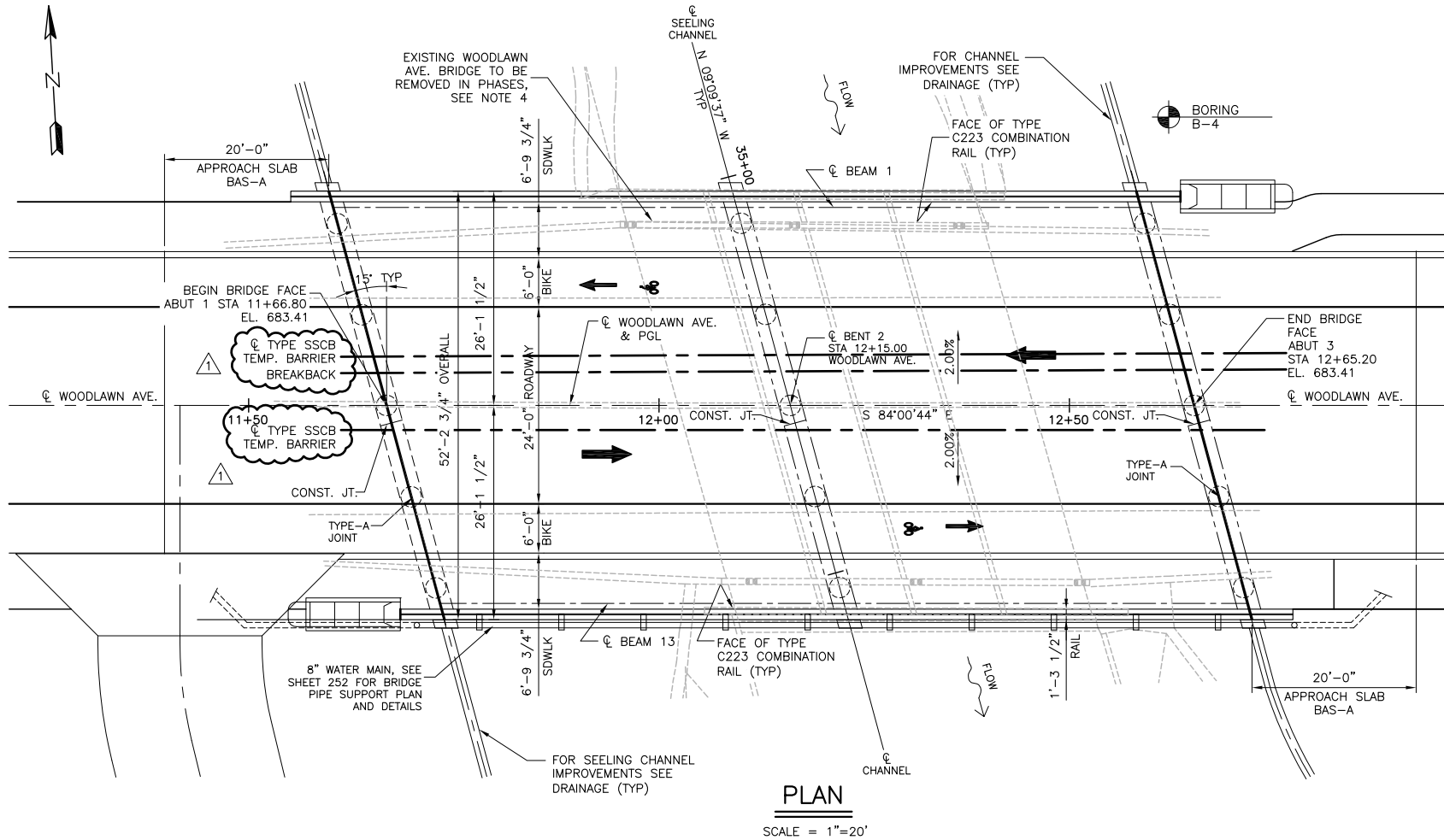
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CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

BRIDGE APPROACH SLAB
ASPHALTIC CONCRETE PAVEMENT
WILSON BLVD.

PROJECT NO.: 60184822		DATE: JULY 2012	
DRWN. BY: DSM	DSGN. BY: JVS	CHKD. BY: BE	SHEET NO. 244 OF 461

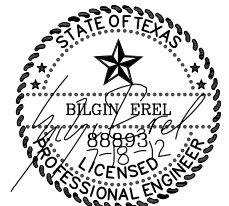
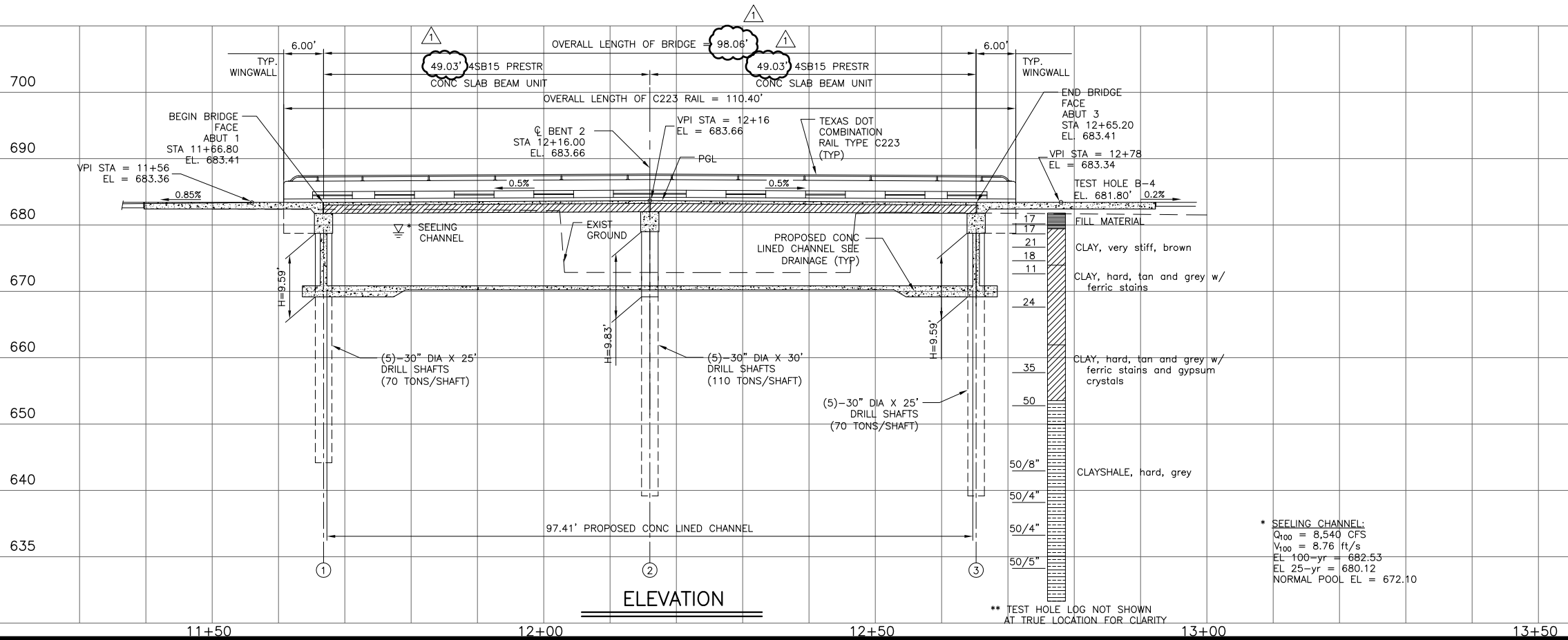
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Design Filename: F:\Briones Engineering\10-161 Seeling Channel\ACAD\245 Woodlawn Bridge Layout-Rev1.dwg



- NOTES:
- DESIGNED IN ACCORDANCE WITH 4TH EDITION AASHTO LRFD SPECIFICATIONS AND INTERIMS FOR HL-93 LOADING.
 - DESIGN SPEED = 45 MPH
ADT 2011 = 7,086
FUNCTIONAL CLASSIFICATION: SECONDARY ARTERIAL TYPE B
 - CONTRACTOR SHALL CALL TO VERIFY UTILITIES BEFORE DRILLING OPERATIONS.
 - SEE SHEET NO. 246 FOR BRIDGE CONSTRUCTION PHASING SEQUENCE DETAILS.

HL93 LOADING



0 5 10 20
SCALE: 1"=20' HORIZ 1"=20' VERT

NO	DATE	DESCRIPTION	REVISIONS
1	8-27-12	REVISED PER REVISION No.1	TT JS DWGCHK

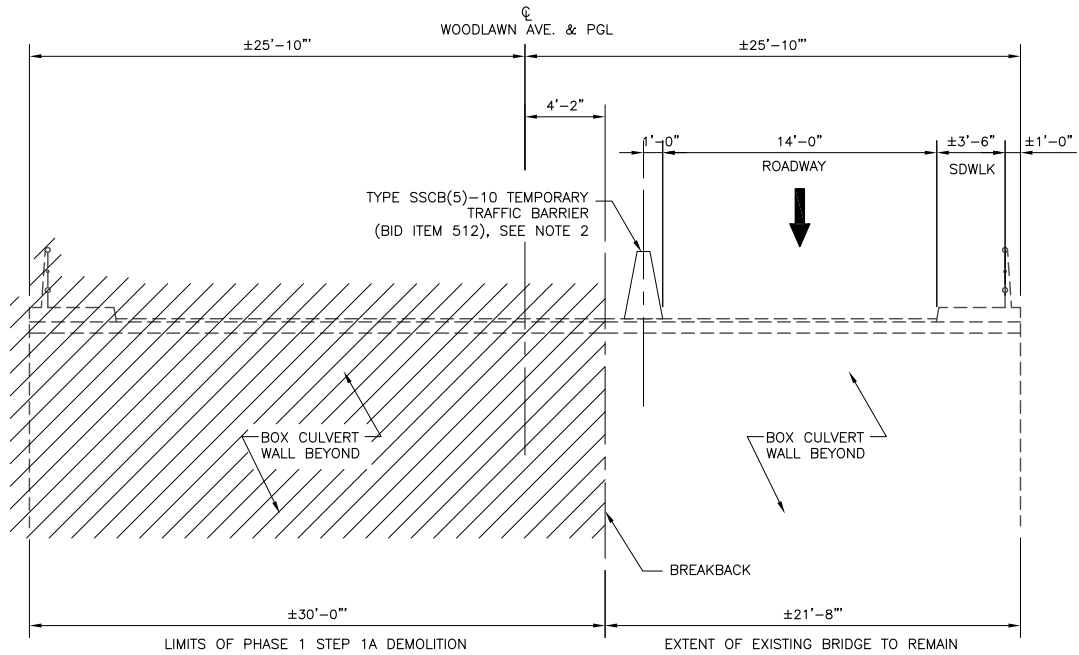
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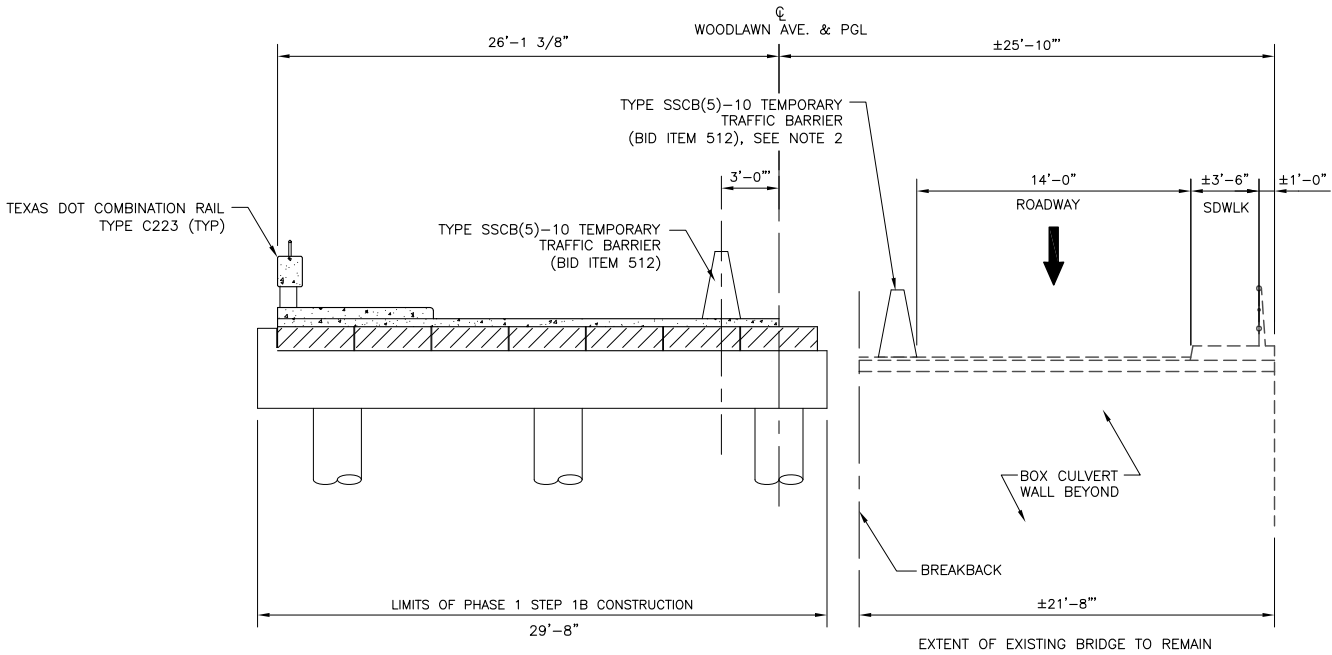
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CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
SEELING CHANNEL PHASE I
BRIDGE LAYOUT
WOODLAWN AVE.

	PROJECT NO.: 60184622		DATE: JULY 2012
DRWN. BY: DSM	DSGN. BY: JVS	CHKD. BY: BE	SHEET NO. 245 OF 461

Design Filename: F:\Briones Engineering\10-161 Seeling Channel Bridge Construction Sequence-Rev1.dwg
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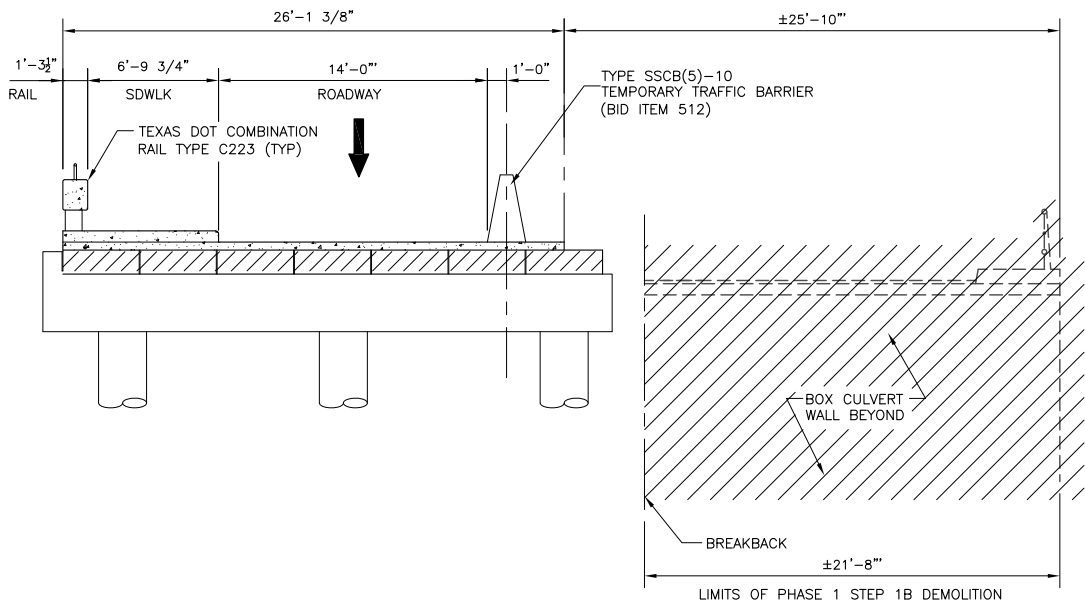


PHASE I STEP 1A

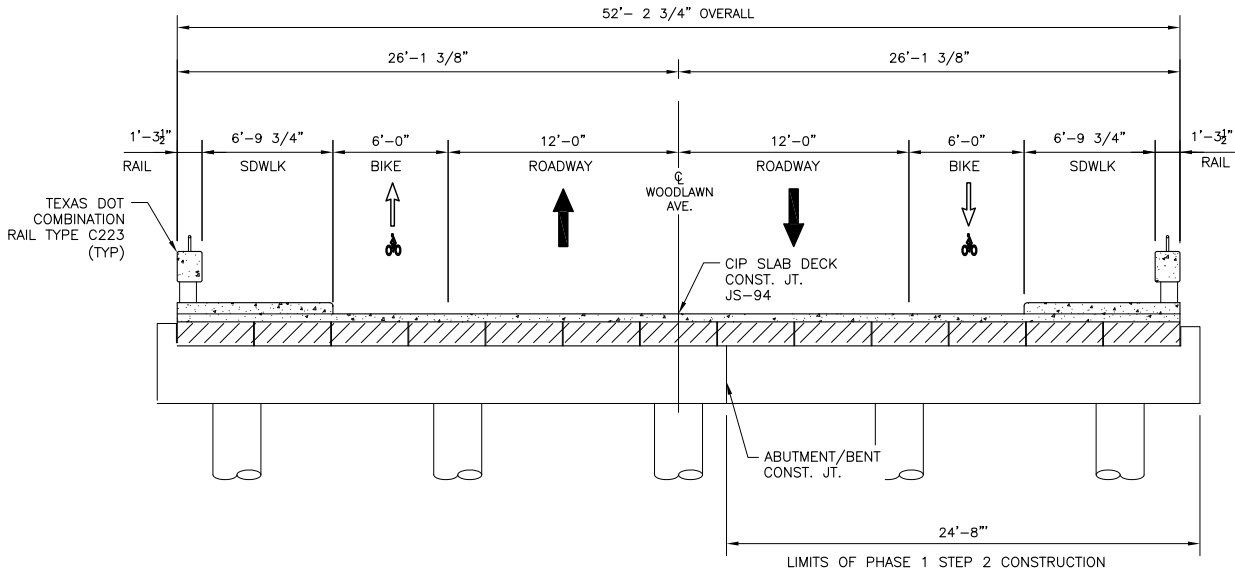


PHASE I STEP 1B

- NOTES:
- COORDINATE BRIDGE CONSTRUCTION PHASING AND SEQUENCE WITH TRAFFIC CONTROL PLAN SHEETS.
 - TEMPORARY TRAFFIC BARRIER TO BE LATERALLY RESTRAINED PRIOR TO PHASE 1 STEP 1A DEMOLITION, PER DETAILS ON SSCB(5)-10.

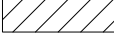


PHASE I STEP 1C



PHASE I STEP 2

LEGEND

 EXISTING STRUCTURE TO BE REMOVED



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SEELING CHANNEL PHASE I
BRIDGE CONSTRUCTION
SEQUENCE WOODLAWN AVE.

PROJECT NO.:	60184822	DATE:	JULY 2012
DRWN. BY:	DSM	DSGN. BY:	JVS
CHKD. BY:	BE	SHEET NO. 246 OF	481

Design Filename: F:\Briones Engineering\10-161 Seeling Channel\ACAD\247 Woodlawn Bridge Estimated Quantities-Rev1.dwg
Plotted on: 2/24/2012 10:47:52 AM

SUMMARY OF ESTIMATED QUANTITIES											
BRIDGE ELEMENT	416 2003	420 2003	420 2004	420 2029	420 2033	420 2034	425 2016	428 2001	450 2166	400 2020	454 2001
	DRILLED SHAFTS (30")	CLASS "C" CONCRETE		REINF. CONCRETE SLAB	REINF. CONCRETE APPROACH SLAB	REINF. CONCRETE SIDEWALK	PRESTRESSED CONCRETE SLAB BEAMS (4SB15)	CONCRETE SURFACE TREATMENT (CLASS II)	RAILING (TYPE C223)	CEMENT STABILIZED BACKFILL	EXPANSION JOINT (TYPE A)
		ABUT	BENT								
	LF	CY	CY	CY	CY	CY	LF	SY	LF	CY	LF
2 - ABUTMENTS	250	52.42									
1 - INTERIOR BENTS	150		22.65								
2 - 49.20' PRESTRESSED CONC SLAB BEAM UNIT				79.1		50.2	1,279.15	949.66	216.78		
MISCELLANEOUS					109.0					38.6	110
TOTAL	400	52.42	22.65	79.1	109.0	50.2	1,279.15	949.66	216.78	38.6	110*

1

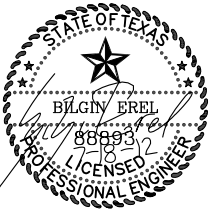
1

1


* QUANTITY BASED ON 55 LF PER JOINT.

CONTROL ELEVATIONS			
LOCATION	ABUT 1	BENT 2	ABUT 3
TOP OF CAP (TYP. FULL LENGTH)	681.41	681.65	681.41
TOP OF DRILLED SHAFT (TYP. FULL LENGTH)	669.17	669.17	669.17


HL93 LOADING



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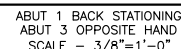
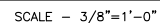
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SEELING CHANNEL PHASE I
SUMMARY OF QUANTITIES
WOODLAWN AVE.

DRWN. BY: DSM	PROJECT NO.: 60184622	DATE: JULY 2012
DSGN. BY: JVS	CHKD. BY: BE	SHEET NO. 247 OF 481



- ① 1/2" PREFORMED BITUMINOUS FIBER MATERIAL BETWEEN SLAB BEAM AND EARWALL. BOND TO EARWALL WITH AN APPROVED ADHESIVE. INSIDE FACE OF EARWALL TO BE CAST PERPENDICULAR TO CAP.
- ② FOUNDATION LOAD OF 70 TONS USED.
- ③ INCREASE AS REQUIRED TO MAINTAIN 3 3/4" FROM FINISH GRADE.
- ④ SEE SLAB BEAM SPAN SHEET FOR "Y".
- ⑤ QUANTITIES SHOWN ARE FOR ONE ABUTMENT ONLY.
- ⑥ MECHANICAL COUPLER THREADS SHOULD BE PROTECTED DURING CONSTRUCTION USING LENTON INTERNAL COUPLER PROTECTORS. BAR END PROTECTORS SHOULD BE PLACED OVER REBAR ENDS IMMEDIATELY AFTER THREADING.

GENERAL NOTES:

THE STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE 4TH EDITION AASHTO LRFD SPECIFICATIONS AND INTERMS FOR HL-93 LOADING.

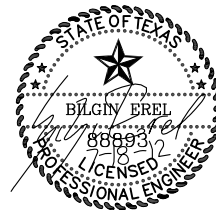
CONCRETE COMPRESSIVE STRENGTH SHALL BE 3,600psi.

ALL REINFORCEMENT SHALL BE Gr. 60ksi

SEE LAYOUT FOR FOUNDATION TYPE, SIZE AND LENGTH.

SEE COMMON FOUNDATION DETAILS STANDARD FD FOR ALL FOUNDATION DETAILS AND NOTES EXCEPT FOR AS SHOWN HERE.

HL93 LOADING



1	8-27-12	REVISED PER REVISION No.1	TT	JS
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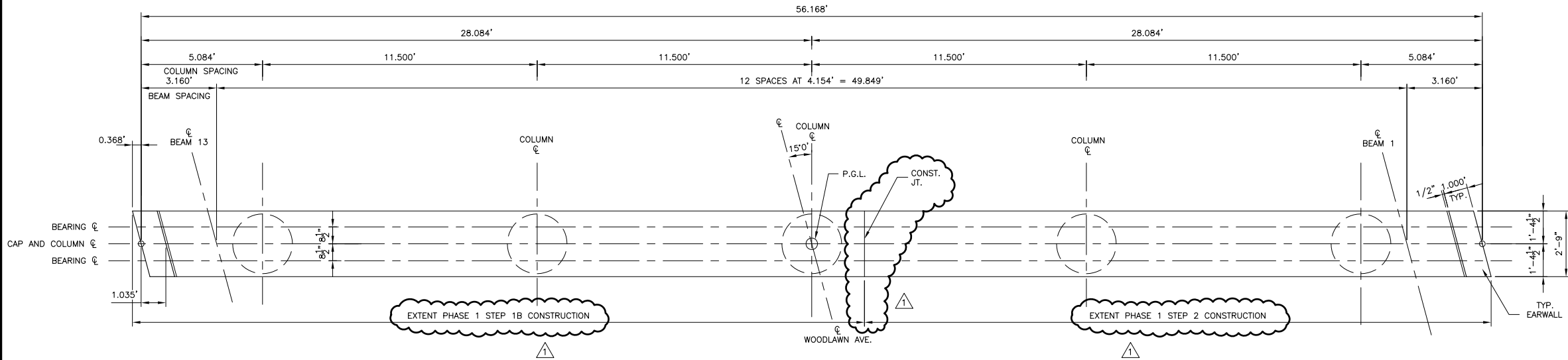


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SEELING CHANNEL PHASE I
ABUTMENT #1 & #3 DETAILS
WOODLAWN AVE.

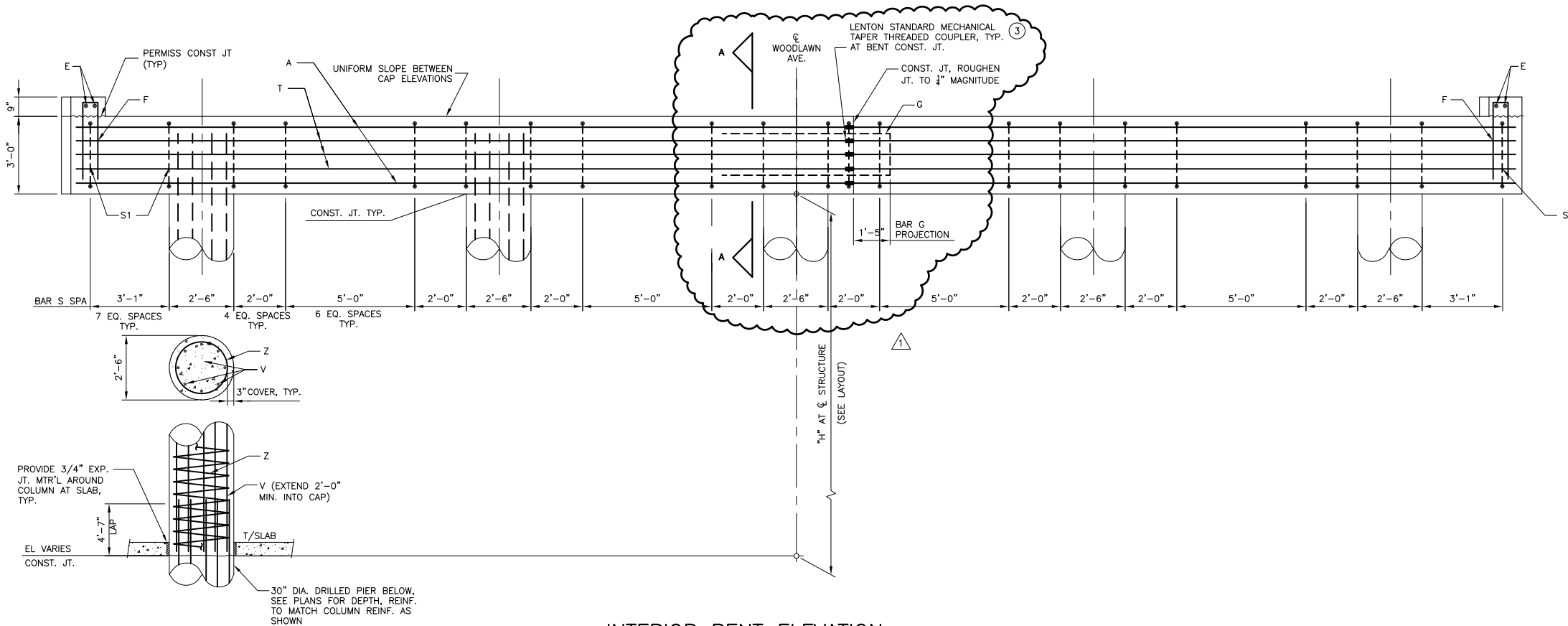
PROJECT NO.: 60184822		DATE: JULY 2012	
DRWN. BY: DSM	DSGN. BY: JVS	CHKD. BY: BE	SHEET NO. 248 OF 46

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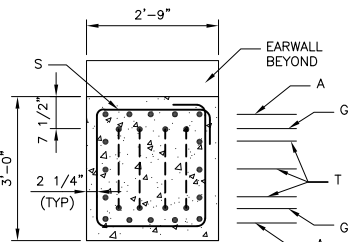
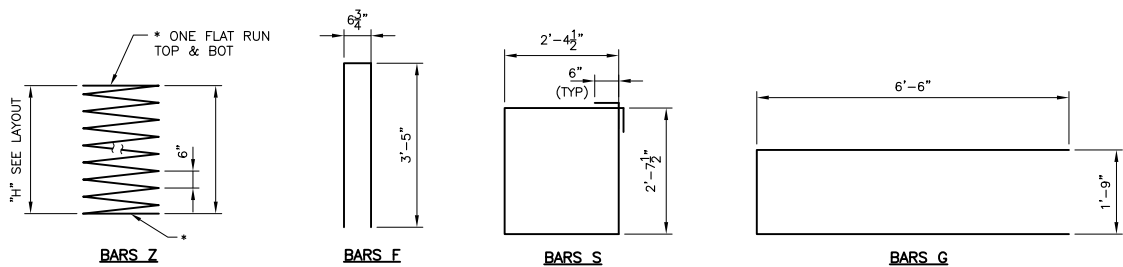
INTERIOR BENT PLAN

SCALE - 3/8"=1'-0"

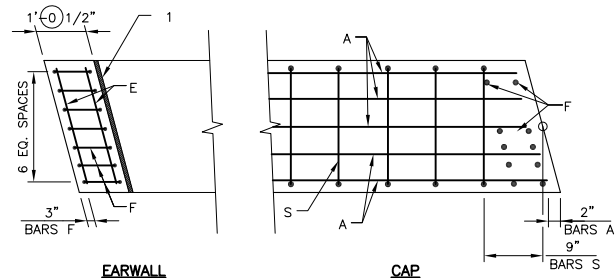


INTERIOR BENT ELEVATION

SCALE - 3/8"=1'-0"



SECTION A-A



CAP END DETAIL

TABLE OF ESTIMATED QUANTITIES

5 COLUMN BENT

BAR	NO.	SIZE	LENGTH	WEIGHT
A	10	#11	55'-10"	2,966
E	4	#4	2'-6"	7
F	14	#4	7'-5"	70
G	4	#10	14'-9"	254
S	76	#5	10'-9"	942
T	6	#5	55'-10"	349
V	40	#11	11'-10"	2,514
Z	5	#3	123'-11"	233
REINFORCING STEEL			LB	7,335
CLASS "C" CONCRETE (CAP)			CY	17.22
CLASS "C" CONCRETE (COL)			CY	5.43

- 1/2" PREFORMED BITUMINOUS FIBER MATERIAL BETWEEN SLAB BEAM AND EAWALL. BOND TO EAWALL WITH AN APPROVED ADHESIVE. INSIDE FACE OF EAWALL TO BE CAST PERPENDICULAR TO CAP.
- FOUNDATION LOAD OF 110 TONS USED.
- MECHANICAL COUPLER THREADS SHOULD BE PROTECTED DURING CONSTRUCTION USING LENTON INTERNAL COUPLER PROTECTORS. BAR END PROTECTORS SHOULD BE PLACED OVER REBAR ENDS IMMEDIATELY AFTER THREADING.

GENERAL NOTES:

THE STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE 4TH EDITION AASHTO LRFD SPECIFICATIONS AND INTERIMS FOR HL-93 LOADING.

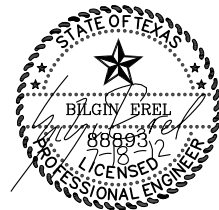
CONCRETE SHALL BE CLASS C WITH 3,600psi COMPRESSIVE STRENGTH.

ALL REINFORCEMENT SHALL BE Gr. 60ksi

SEE LAYOUT FOR FOUNDATION TYPE, SIZE AND LENGTH.

SEE COMMON FOUNDATION DETAILS STANDARD FD FOR ALL FOUNDATION DETAILS AND NOTES, EXCEPT FOR AS SHOWN HERE.

HL93 LOADING



NO	DATE	DESCRIPTION	REVISIONS
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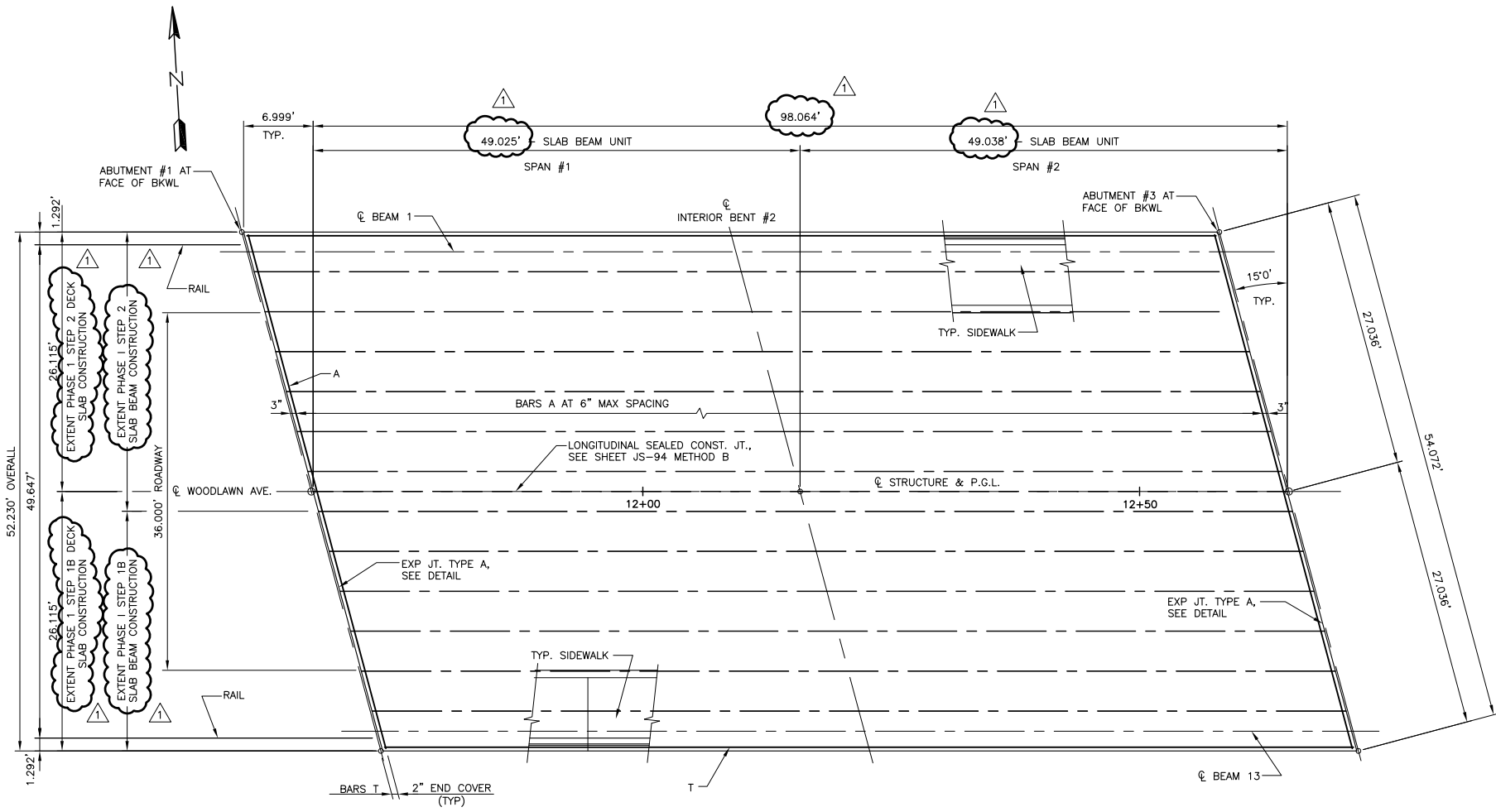


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SEALING CHANNEL PHASE I
INTERIOR BENT #2 DETAILS
WOODLAWN AVE.

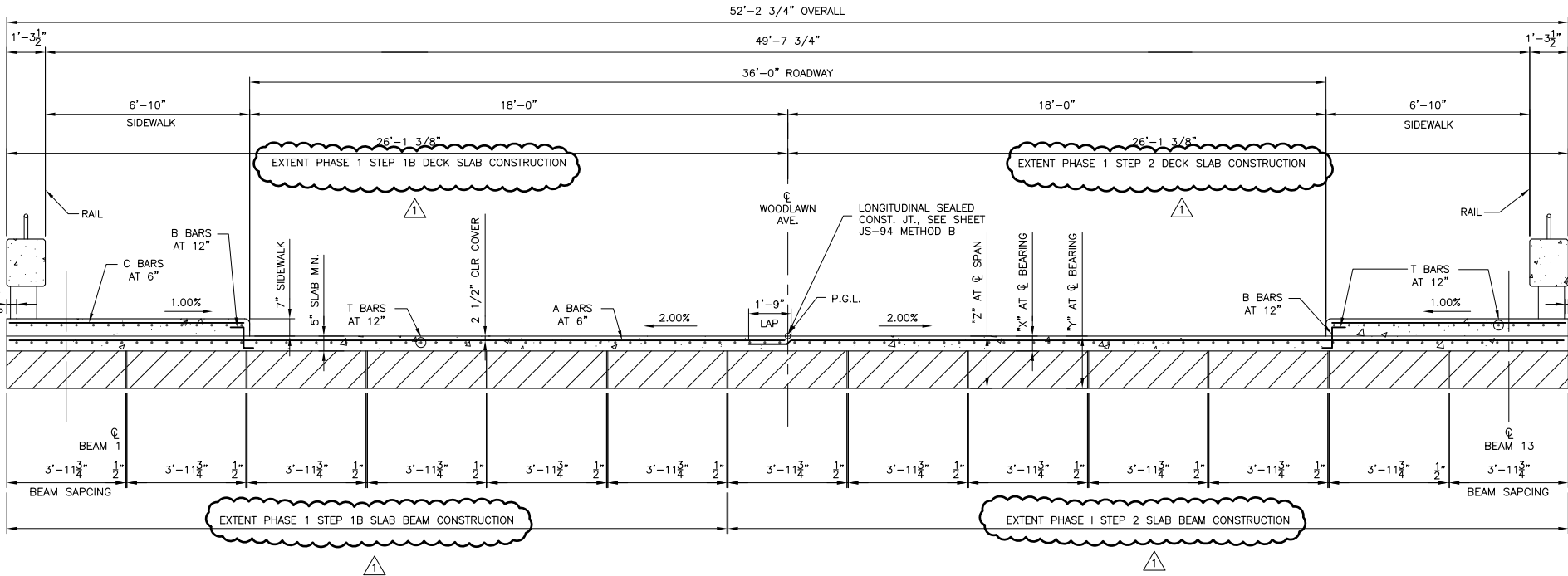
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DECK SLAB PLAN

SCALE - 1/8"=1'-0"

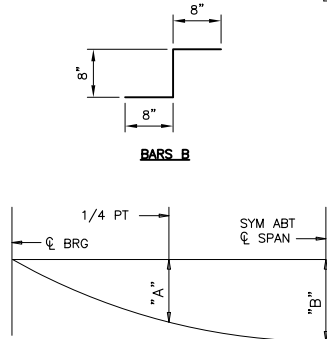


TYPICAL TRANSVERSE SECTION

SCALE - 3/8"=1'-0"

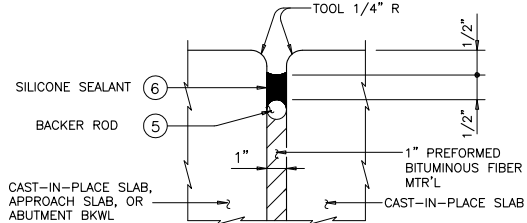
BAR TABLE	
BAR	SIZE
A	#5
B	#4
C	#5
T	#4

TABLE OF ESTIMATED QUANTITIES			
SPAN	PRESTRESSED CONCRETE SLAB BEAMS (4SB15)	CLASS "C" CONCRETE	① TOTAL REINF. STEEL
NO.	LF	CY	Lb
1	639.57	72.0	7,174
2	639.57	72.0	7,174
TOTAL	1,279.14	144.0	14,348

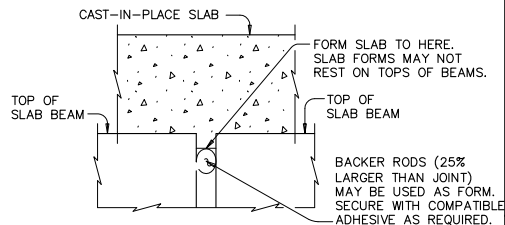


DEAD LOAD DEFLECTION DIAGRAM

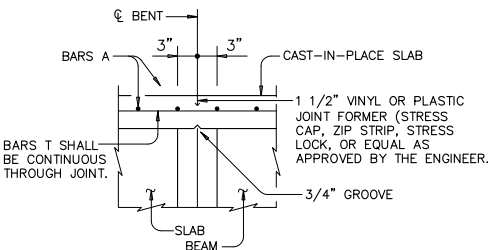
NOTE: DEFLECTIONS SHOWN ARE DUE TO CONCRETE SLAB ONLY. ($E_c = 5 \times 10^6$ PSI) CALCULATED DEFLECTIONS SHOWN ARE THEORETICAL AND ACTUAL DIMENSIONS MAY BE LESS. DEFLECTIONS SHALL BE ADJUSTED BASED ON FIELD OBSERVATIONS.



TYPE A JOINT DETAIL



DETAIL A



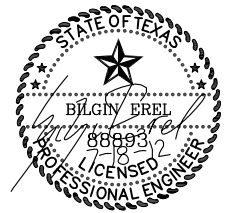
CONTINUOUS SLAB DETAIL ⑦

TABLE OF VARIABLE VALUES							
SPAN	BEAM NO.	BEAM TYPE	DEAD LOAD DEFLECTION		SECTION DEPTHS ②		
			"A"	"B"	"X"	"Y"	"Z"
1-2	1-3,11-13	4SB15	0.028"	0.039"	7"	1'-10"	1'-9 ½"
1-2	4-10	4SB15	0.028"	0.039"	7"	1'-10"	1'-9 ½"

GENERAL NOTES:
THE STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE 4TH EDITION AASHTO LRFD SPECIFICATIONS AND INTERIMS FOR HL-93 LOADING.
CONCRETE COMPRESSIVE STRENGTH SHALL BE 4,000psi.
ALL SLAB REINFORCEMENT SHALL BE Gr. 60ksi
BARS LAPS WHERE REQUIRED SHALL BE AS FOLLOWS:
UNCOATED - #4 = 1'-5"
- #5 = 1'-9"

- ① REINFORCING STEEL WEIGHT IS CALCULATED USING AN APPROXIMATE FACTOR OF 2.8 LBS/SF.
- ② BASED ON THEORETICAL BEAM CAMBER, DEAD LOAD DEFLECTIONS OF 5" CAST-IN-PLACE CONCRETE SLAB AND A CONSTANT GRADE.
- ③ FABRICATOR SHALL ADJUST BEAM LENGTHS FOR BEAM SLOPES AS REQUIRED.
- ④ WHERE SLAB IS CONTINUOUS OVER INTERIOR BENTS, BARS T SHALL BE CONTINUOUS THROUGH JOINT. SEE "CONTINUOUS SLAB DETAIL".
- ⑤ BACKER ROD SHALL BE 25% LARGER THAN JOINT OPENING AND SHALL BE COMPATIBLE WITH THE SEALANT; NO REACTION SHALL OCCUR BETWEEN THE ROD AND THE SEALANT.
- ⑥ SEALANT SHALL BE CLASS 7 SILICONE SEALANT. INSTALL WHEN AMBIENT TEMPERATURE IS BETWEEN 55°F AND 85°F AND RISING. ENGINEER TO DETERMINE ALLOWABLE HOURS FOR SEALANT APPLICATION.

HL93 LOADING



NO	DATE	DESCRIPTION	REVISIONS
1	8-27-12	REVISED PER REVISION No.1	TT JS

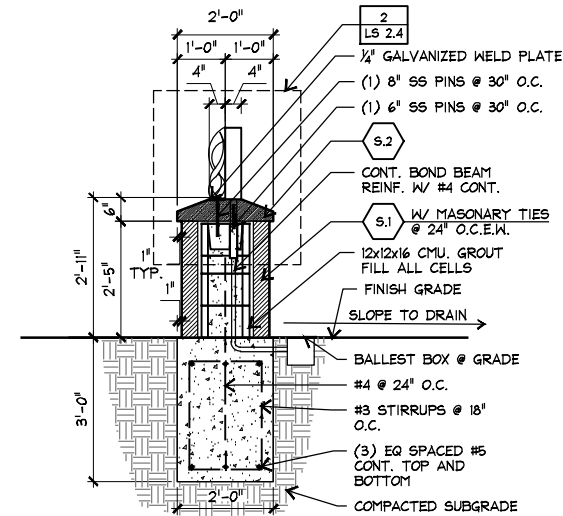
AECOM
AECOM TECHNICAL SERVICES, INC.
6800 PARK TEN BLVD., SUITE 180 SOUTH
SAN ANTONIO, TEXAS 78213
WWW.AECOM.COM
TBP REG. NO. F-3580

BRIONES
CONSULTING & ENGINEERING LTD.
8118 BROADWAY
SAN ANTONIO, TX 78209
TBP REG. NO. F-5028
(210) 828-1431
(210) 828 1432 fax

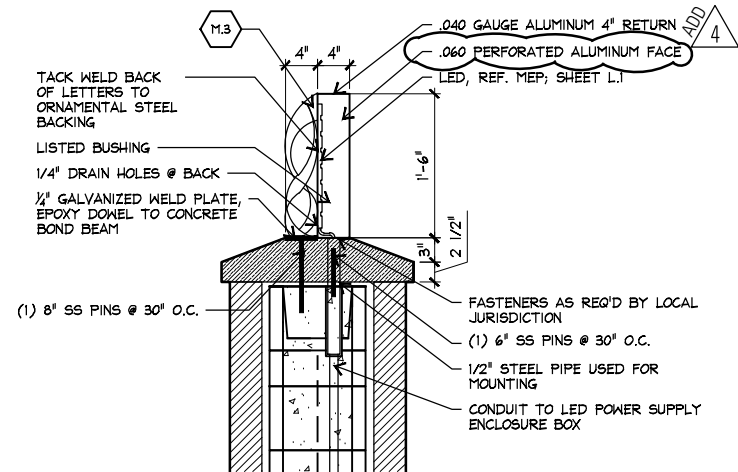
CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
SEELING CHANNEL PHASE I
PRESTRESSED CONCRETE SLAB
BEAM SPANS (TY SB15)
WOODLAWN AVE.

PROJECT NO.: 60184822	DATE: JULY 2012
DRWN. BY: DSM	DSGN. BY: JVS
CHKD. BY: BE	SHEET NO. 250 OF 481

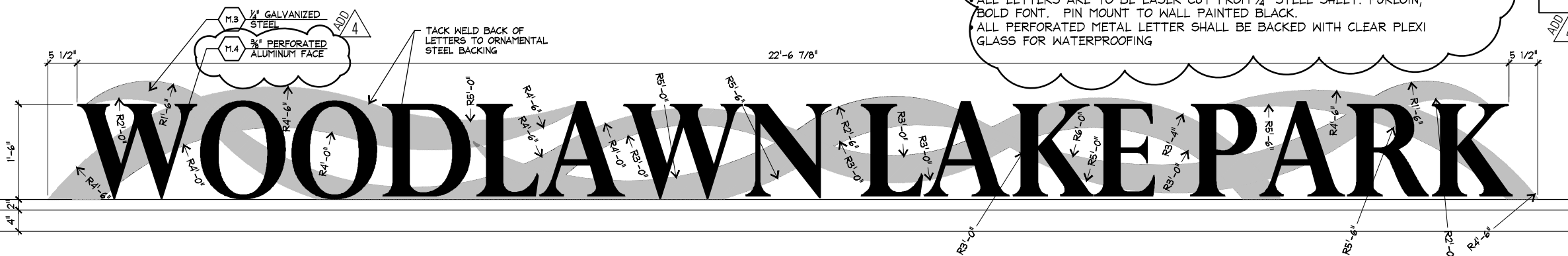
NOTE:
DESIGN BUILD STRUCTURE CONTRACTOR TO
SUBMIT ENGINEER SIGNED & SEALED SHOP
DRAWINGS OF ENTRY MONUMENT WALL,
COLUMNS, AND TOWER FOR REVIEW BY
LANDSCAPE ARCHITECT.



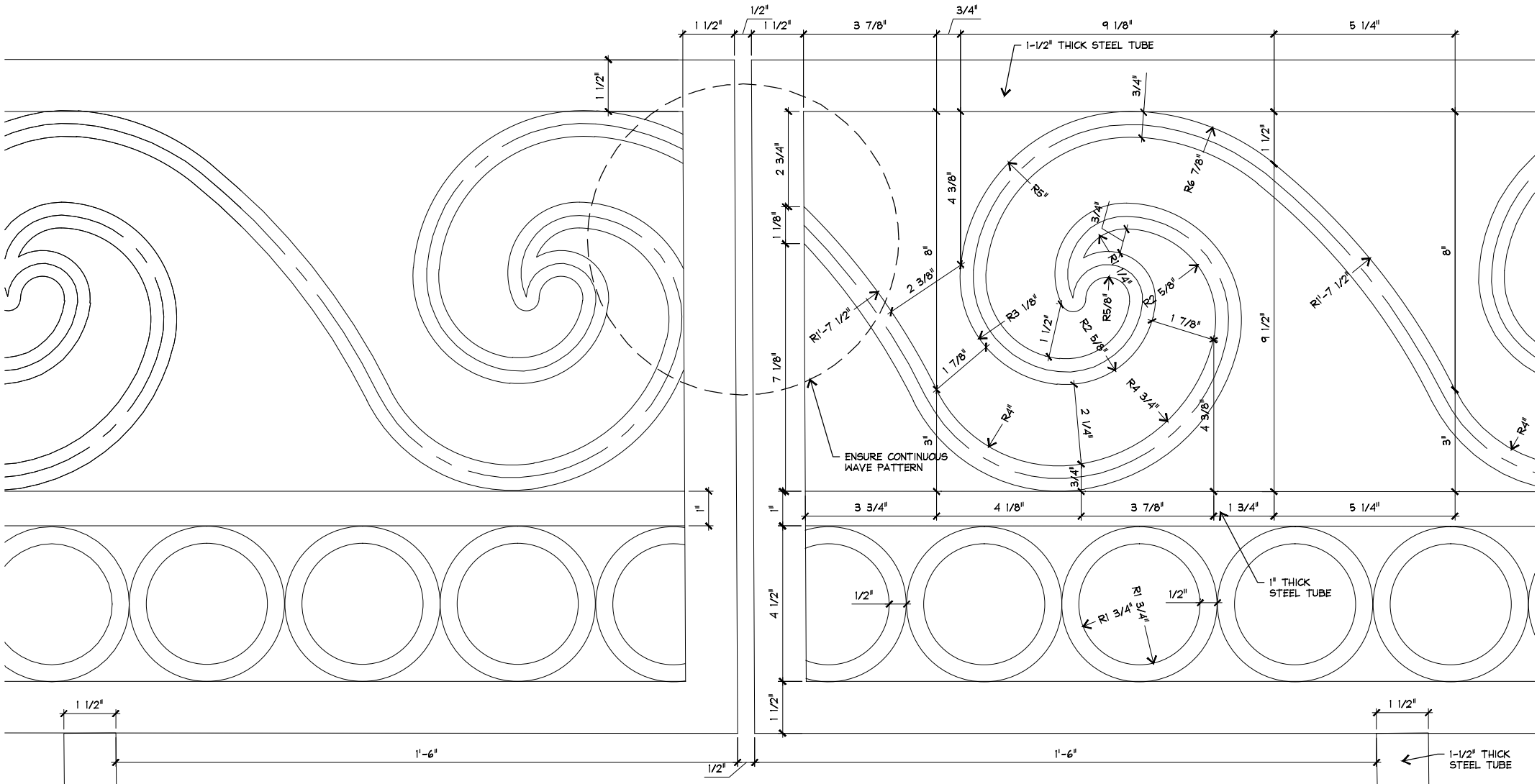
1 ENTRY SIGNWALL @ ALUMINUM LETTERS
SECTION
SCALE: 1/4"=1'-0"



2 ENTRY SIGN LETTER CONNECTION
SECTION
SCALE: 1/2"=1'-0"



3 ALUMINUM LETTERS ON ENTRY WALL
ELEVATION
SCALE: 1/2"=1'-0"



NOTE:
1. CONTRACTOR TO SUBMIT SHOP DRAWINGS OF RAILINGS FOR LANDSCAPE
ARCHITECT APPROVAL PRIOR TO CONSTRUCTION.
2. CONTRACTOR TO FIELD VERIFY LF OF RAILING PRIOR TO CONSTRUCTION.

4 ORNAMENTAL STEEL RAILING
ELEVATION
SCALE: 3"=1'-0"

NOTE:
• GRAPHIC FILE TO BE PROVIDED TO CONTRACTOR FOR USE.
• CONTRACTOR TO PROVIDE SHOP DRAWINGS & FULL SIZE GRAPHIC MOCK-UP
FOR OWNER APPROVAL PRIOR TO CONSTRUCTION.
• ALL LETTERS ARE TO BE LASER CUT FROM 1/4" STEEL SHEET. PURLOIN,
BOLD FONT. PIN MOUNT TO WALL PAINTED BLACK.
• ALL PERFORATED METAL LETTER SHALL BE BACKED WITH CLEAR PLEXI
GLASS FOR WATERPROOFING



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SAN ANTONIO, TEXAS 78213
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TBP REG. NO. F-3580



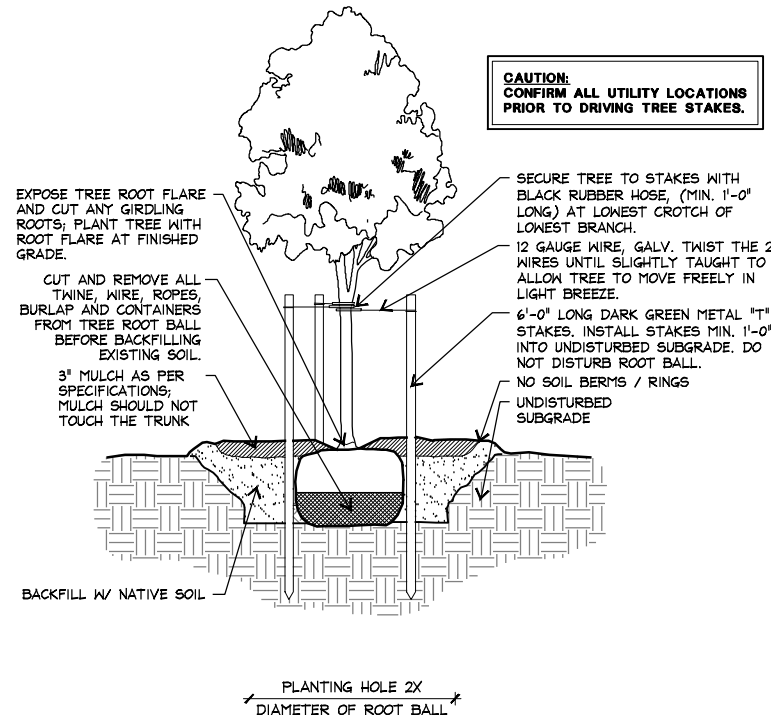
70 N.E. Loop 410
Suite 570
San Antonio, Texas 78216
210/366-9933 Fax: 210/366-9916
Austin-Dallas-Houston-San Antonio

CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
SEEKING CHANNEL PHASE I

SITWORK DETAILS

PROJECT NO. 1 S10063 DATE: JULY 23, 2012
DRAWN BY: CMH, GR DSGN. BY: MWP CHKD. BY: JZ, MWP SHEET NO. LS 2.4

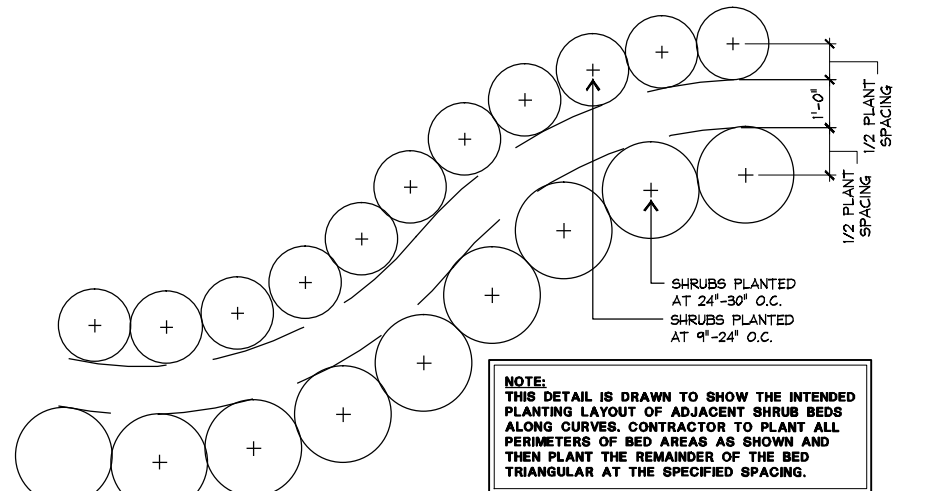
NOTES:
1) REMOVE ALL BAMBOO OR OTHER MATERIAL TIED TO THE TRUNK BEFORE PLANTING
2) STAKES SHALL BE REMOVED NO LATER THAN ONE COMPLETE GROWING SEASON
3) PLANTING PIT SIZE: WIDTH: TWO TIMES THE ROOT BALL DEPTH: EQUAL TO THE ROOT BALL, LESS 2"



3 TREE STAKING

SECTION

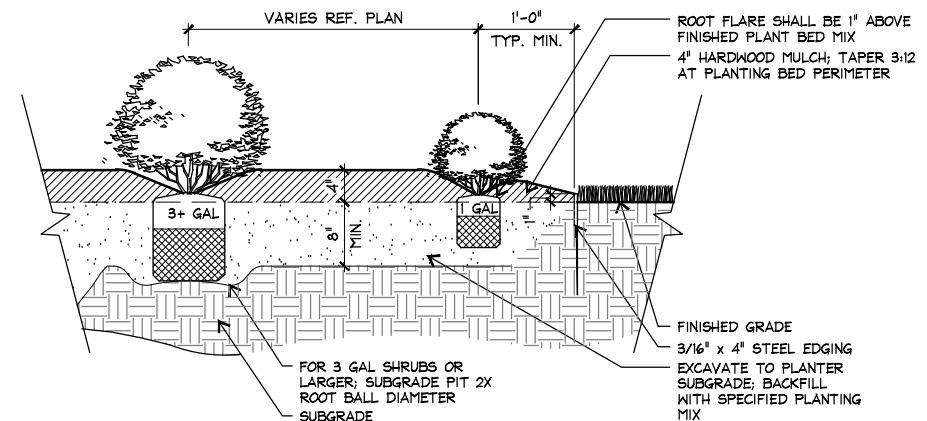
SCALE: 1/2"=1'-0"



2 PLANT SPACING

PLAN

SCALE: 1/2"=1'-0"



1 SHRUB BED PLANTING

SECTION

SCALE: 1"=1'-0"

PLANT LIST

TREES

SYMBOL	COMMON NAME BOTANICAL NAME	SIZE	REMARKS
QV2	Live Oak <i>Quercus Virginia</i>	2" cal; min 8' ht; min 10' sprd.	Single trunk B#B; straight trunk with full and uniform canopy.
QM2	Burr Oak <i>Quercus Macrocarpa</i>	2" cal; min 8' ht; min 10' sprd.	Single trunk B#B; straight trunk with full and uniform canopy.
SA2	Eve's Necklance <i>Sophora affinis</i>	2" cal; min 8' ht; min 10' sprd.	Single trunk B#B; straight trunk with full and uniform canopy.
UC4	Cedar Elm <i>Ulmus crassifolia</i>	4" cal; min 10' ht; min 6' sprd.	Single trunk B#B; straight trunk with full and uniform canopy.
TM6	Montezuma Cypress <i>Taxodium mucronatum</i>	6" cal; min 12' ht; min 8' sprd.	Single trunk B#B; straight trunk with full and uniform canopy.
QF2	Monterrey Oak <i>Quercus polymorpha</i>	2" cal; min 6' ht; min 8' sprd.	Single trunk B#B; straight trunk with full and uniform canopy.
QF6	Monterrey Oak <i>Quercus polymorpha</i>	6" cal; min 12' ht; min 8' sprd.	Single trunk B#B; straight trunk with full and uniform canopy.
PM2	Mexican Sycamore <i>Platanus mexicana</i>	min 1 1/2" cal; min 6' ht; min 8' sprd.	Single trunk B#B; straight trunk with full and uniform canopy.
TD2	Bald Cypress <i>Taxodium distichum</i>	2" cal; min 6' ht; min 8' sprd.	Single trunk B#B; straight trunk with full and uniform canopy.
TD6	Bald Cypress <i>Taxodium distichum</i>	6" cal; min 8' ht; min 10' sprd.	Single trunk B#B; straight trunk with full and uniform canopy.
QS2	Shumard Oak <i>Quercus shumardii</i>	min 1 1/2" cal; min 6' ht; min 5' sprd.	Single trunk B#B; straight trunk with full and uniform canopy.
AF2	Huisache <i>Acacia farnesiana</i>	min 1 1/2" cal; min 4' ht; min 6' sprd.	Single trunk B#B; straight trunk with full and uniform canopy.
PA2	Retama, Paloverde <i>Parkinsonia aculeata</i>	min 1 1/2" cal; min 4' ht; min 6' sprd.	Single trunk B#B; straight trunk with full and uniform canopy.

CHANNEL PLANTS

CALLOUT	COMMON NAME BOTANICAL NAME	SIZE	REMARKS
CL	Inland Sea Oats <i>Chasmanthium latifolium</i>	1 gal; 12" ht; min 12" sprd. Approx. 2,927 s.f.	Plant 24" o.c.
TD	Eastern Gama <i>Tripsacum dactyloides</i>	1 gal; 8" ht. Approx. 2,838 s.f.	Plant 24" o.c.
TA	White Tridens <i>Tridens albenscens</i>	Seed 2,000 s.f. / 11b Approx. 2,447 s.f.	Evenly disperse
SN	Indiangrass <i>Sorghastrum nutans</i>	Root cuttings; 8" ht. Approx. 6,832 s.f.	Plant 24" o.c.
AG	Bushy Bluestem <i>Andropogon glomeratus</i>	1 gal; 12" ht; 12" sprd. Approx. 1,901 s.f.	Plant 36" o.c. 0.128 plants/s.f.
BC	Sideoats Grama <i>Bouteloua curtipendula</i>	1 gal; 12" sprd. Approx. 3,958 s.f.	Plant 24" o.c.
PC	Pickersweet <i>Portulaca cordata</i>	Seed 2,000 s.f. / lbs Approx. 1,548 s.f.	Evenly disperse

MAIN ENTRY PLANTS

CALLOUT	COMMON NAME BOTANICAL NAME	SIZE	REMARKS
JC	Sea Green Juniper <i>Juniperus x pfitzeruaba</i>	5 gal.; 30" ht. min 24" sprd.	Plant 50" o.c.
RR	Knock Out Rose <i>Rosa alba 'Radraz'</i>	3 gal.; 24" ht. 18" sprd.	Plant 36" o.c.
LM	Trailing White Lantana <i>Sandwichia hirtellifolia</i>	1 gal.; 12" ht. 12" sprd.	Plant 24" o.c. Start 24" way from wall

LAWN

SYMBOL	COMMON NAME BOTANICAL NAME	SIZE	REMARKS
Bermuda Tiff Sport'		Solid Sod Approx. 6,355 s.f.	Reference specifications for care. Apply 2" imported top dressing
Bermuda Seed Cynodon species Sahara'		Hydromulch Approx. 215,675 s.f.	Apply @ 3 lbs. / 1000 s.f. Company: Native American Seed Phone: 800/728-4043 Apply 2" import top dressing Apply each @ 30lbs per acre. Company: Native American Seed Phone: 800/728-4043
'Drainfield Mix' Riparian Seed		Hydromulch Approx. 61,054 s.f.	
Bermuda Tiff Sport'		18" Sod Strips Approx. 3,713 l.f.	Reference specifications for care. Apply 2" import top dressing

NOTE:
CONTRACTOR TO VERIFY PLANT QUANTITIES REQUIRED TO CARRY OUT DESIGN INTENT AS SHOWN ON PLANS.



NO	DATE	DESCRIPTION	REVISIONS	DWGCHK
4	8-28-12	ADDENDUM NO. 4		

AECOM

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6800 PARK TEN BLVD., SUITE 180 SOUTH
SAN ANTONIO, TEXAS 78213
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T&PE REG. NO. F-3580

T B G

Landscape Architects • Planners
70 N.E. Loop 410
Suite 570
San Antonio, Texas 78216
210/366-9933 Fax: 210/366-9916
Austin-Dallas-Houston-San Antonio

CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
SEELING CHANNEL PHASE I

PLANTING LIST AND DETAILS

PROJECT NO. 1	S10063	DATE: JULY 23, 2012
DRWN. BY: COH, GR	DSGN. BY: MWP	CHKD. BY: MWP

SHEET NO. LP 2.1

SANITARY SEWER REPLACEMENT PROJECT			
ITEM NO.	DESCRIPTION	UNIT	TOTAL
100	Mobilization	LS	1
101	Preparation of R.O.W.	LS	1
550	Trench Excavation Safety Protection	LF	2,255
848	8" PVC Sanitary Sewer Line (14' - 18')	LF	272
848	10" PVC Sanitary Sewer Line (10' - 14')	LF	67
848	10" PVC Sanitary Sewer Line (14' - 18')	LF	125
848	15" PVC Sanitary Sewer Line (6' - 10')	LF	13
848	15" PVC Sanitary Sewer Line (10' - 14')	LF	234
848	15" PVC Sanitary Sewer Line (14' - 18')	LF	286
848	18" PVC Sanitary Sewer (6' - 10')	LF	10
848	21" PVC Sanitary Sewer (14' - 18')	LF	436
848	30" Fiberglass Reinforced Gravity Sanitary Sewer (6' - 10')	LF	40
848	30" Fiberglass Reinforced Gravity Sanitary Sewer (14' - 18')	LF	894
851	Adjust Existing Manholes	EA	894
850	Sanitary Sewer Structures - 60"	EA	0
850	Sanitary Sewer Structures - 72"	EA	6
850	Sanitary Sewer Structures - 96"	EA	1
852	48" Manhole (0' - 6' deep)	EA	13
852	60" Manhole (0' - 6' deep)	EA	1
852	48" Manhole Extra Depth	VF	103
852	60" Manhole Extra Depth	VF	10
854	Sanitary Sewer Laterals	LF	118
854	Sanitary Sewer Cleanout	EA	6
855	Reconstruct Existing Manhole	EA	2
856	Jacking, Boring or Tunneling (48")	LF	122
856	Carrier Pipe - 30" Fiberglass Reinforced Gravity Sewer Pipe	LF	122
856	Casing - 48" Steel Pipe	LF	122
858	Concrete Encasement	CY	19
860	Vertical Stacks	VF	20
862	Abandonment of Sanitary Sewers (15" or larger)	LF	1,463
864	Bypass Pumping	LS	1
866	8" - 15" Sewer Main Television Inspection	LF	984
866	18" - 21" Sewer Main Television Inspection	LF	446
866	24" - 30" Sewer Main Television Inspection	LF	934
866	8" - 15" Sewer Main Cleaning & Pre-Televising (Existing Mains)	LF	226
866	18" - 21" Sewer Main Cleaning & Pre-Televising (Existing Mains)	LF	1,652



Δ	8/14/12	REVISED QUANTITY DESCRIPTIONS		
Δ	8/23/12	REVISED QUANTITIES		
NO	DATE	DESCRIPTION	DWGCHK	
		REVISIONS		

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6800 PARK TEN BLVD., SUITE 180 SOUTH
SAN ANTONIO, TEXAS 78213
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T&E REG. NO. F-3580



**SAN ANTONIO
WATER SYSTEM
SANITARY SEWER
REPLACEMENT PROJECT
PROP. JOB NO. 10-5510**

CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
SEEKING CHANNEL PHASE I

SUMMARY QUANTITY SHEET

5 OF 15

BID SUBMITTAL	PROJECT NO. 60184822	DATE: JULY 2012
DRWN. BY: M.G.	DSGN. BY: T.W.	CHKD. BY: CC SHEET NO.

NOTE TO CONTRACTOR:
SEE TREE PRESERVATION PLAN FOR DETAILED
DESCRIPTION AND LOCATION OF TREES AFFECTED
BY PROJECT CONSTRUCTION.

CPS AND TELEPHONE COMPANY NOTES

CALL THE TEXAS WIDE STATE ONE CALL LOCATOR AT
1-800-545-6005 48 HOURS BEFORE ANY CONSTRUCTION.

DUE TO FEDERAL REGULATION TITLE 49, PART 192.181,
CPS MUST MAINTAIN ACCESS TO GAS VALVES AT ALL
TIMES. THE CONTRACTOR/FOREMAN MUST PROTECT AND
WORK AROUND ANY GAS VALVES THAT ARE IN THE
PROJECT AREA.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR
PROTECTING CPS OVERHEAD AND UNDERGROUND ELECTRIC
FACILITIES IF ADJACENT TO WORK AREA.

THE EXISTENCE AND LOCATION OF UNDERGROUND CABLE
INDICATED ON THE PLANS ARE TAKEN FROM THE BEST
RECORDS AVAILABLE AND ARE NOT GUARANTEED TO BE
ACCURATE. CONTRACTOR/FOREMAN IS RESPONSIBLE FOR
MAINTAINING AND PROTECTING THE INTEGRITY OF POWER
POLES AND UNDERGROUND ELECTRIC CABLES DURING
(NSPI) CONSTRUCTION. 48 HOURS BEFORE BEGINNING ANY
EXCAVATION. CALL THE TEXAS WIDE STATE ONE CALL
LOCATOR AT 1-800-545-6005. CONTRACTOR TO PROTECT
AND SUPPORT TELEPHONE COMPANY PLANT DURING
CONSTRUCTION.

LEGEND

PROPOSED 30" SANITARY SEWER	
PROPOSED 18"-21" SANITARY SEWER	
PROPOSED 8"-15" SANITARY SEWER	
PROPOSED MANHOLE	
EXISTING SANITARY SEWER MAIN TO BE REMOVED	
PROPOSED SANITARY SEWER LATERAL CONNECTION	
PROPOSED R.O.W. LINE	
EXISTING PROPERTY & R.O.W. LINE	

SCALE:
HORIZ: 1"=40'
VERT: 1"=10'



NO	DATE	DESCRIPTION	DWGCHK
1	8/23/12	REVISED SANITARY SEWER STRUCTURE FROM 60" TO 72"	

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6800 PARK TEN BLVD., SUITE 180 SOUTH
SAN ANTONIO, TEXAS 78215
WWW.AECOM.COM
T&PE REG. NO. F-3580



**SAN ANTONIO
WATER SYSTEM
SANITARY SEWER
REPLACEMENT PROJECT
PROP. JOB NO. 10-5510**

CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

SEEKING CHANNEL PHASE I
**SANITARY SEWER
PLAN AND PROFILE
LINE "A"**
STA 9+88 TO STA 13+50

BID SUBMITTAL PROJECT NO. 60184822 DATE: JULY 2012
DRWN. BY: M.G. DESGN. BY: T.W. CHKD. BY: CC SHEET NO. 6 OF 15

CONTRACTOR SHALL NOT DISTURB, DISPLACE OR
DAMAGE EXISTING CONCRETE CHANNEL DURING
BORING PROCESS. CONTRACTOR SHALL REFER TO
GEOTECHNICAL REPORT FOR SOIL CONDITIONS,
PRIOR TO CONSTRUCTION AT BORE AREA.

PROP SEELING CHANNEL
IMPROVEMENTS

SEELING
CHANNEL

WOODLAWN LAKE PARK

PROP 30" SANITARY SEWER

PROP MH-A2 (72")
(SPEC 850)

STA. 12+85 LINE "A"
N=13,715,633.84
E=2,115,785.33

W. WOODLAWN AVE.

PROP 30" SANITARY SEWER

MATCHLINE - STA. 13+50

REMOVE 150 LF
EXIST 18" SANITARY SEWER MAIN

ABANDON AND GROUT 230 LF
EXIST 18" SANITARY SEWER MAIN

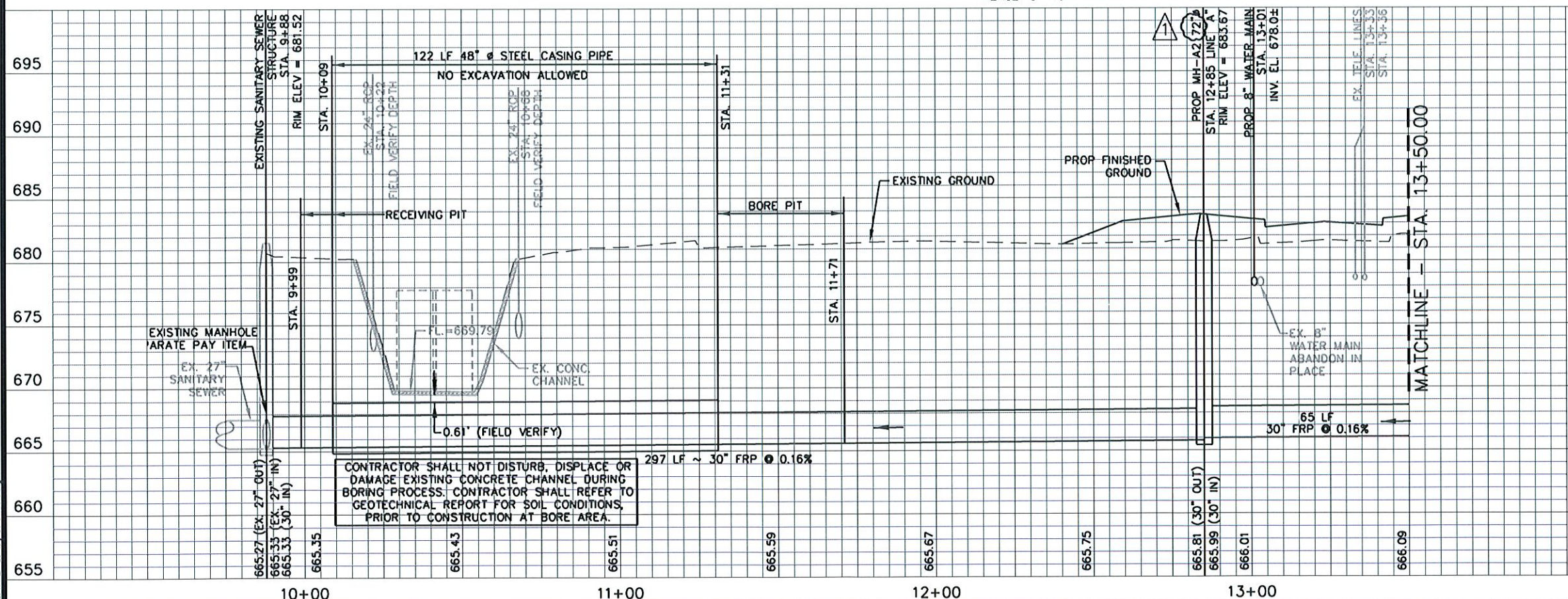
TRENCH EXCAVATION SAFETY PROTECTION

TRENCH EXCAVATION PROTECTION SHALL BE ACCOMPLISHED
AS REQUIRED BY THE PROVISIONS OF PART 1926,
SUBPART P-EXCAVATION, TRENCHING, AND SHORING OF
THE OCCUPATIONAL SAFETY AND HEALTH'S STANDARDS
AND INTERPRETATIONS. THE CONTRACTOR/FOREMAN SHALL
ALSO COMPLY WITH 550, TRENCH EXCAVATION PROTECTION,
SAN ANTONIO WATER SYSTEM SPECIFICATIONS FOR WATER
AND SEWER CONSTRUCTION.

LINE "A"

0 20 40
HORIZ: 1"=40'

Item #	Description	Unit	Qty
550	Trench Excavation Safety Protection	LF	118
848	30" Fiberglass Reinforced Gravity Sanitary Sewer (14' - 16')	LF	240
850	Sanitary Sewer Structure (72")	EA	1
856	Jacking, Boring or Tunneling (48")	LF	122
856	Carrier Pipe - 30" Fiberglass Reinforced Gravity Sewer Pipe	LF	122
862	Abandonment of Sanitary Sewer Main	LF	230
856	Casing - 48" Steel Pipe	LF	122
866	24" - 30" Sewer Main Television Inspection	LF	240



CONTRACTOR SHALL NOT DISTURB, DISPLACE OR
DAMAGE EXISTING CONCRETE CHANNEL DURING
BORING PROCESS. CONTRACTOR SHALL REFER TO
GEOTECHNICAL REPORT FOR SOIL CONDITIONS,
PRIOR TO CONSTRUCTION AT BORE AREA.

NOTE TO CONTRACTOR:
SEE TREE PRESERVATION PLAN FOR DETAILED
DESCRIPTION AND LOCATION OF TREES AFFECTED
BY PROJECT CONSTRUCTION.

ABANDON AND GROUT 25 LF EXISTING
18" SANITARY SEWER MAIN AFTER
CONSTRUCTION OF SANITARY SEWER
IMPROVEMENTS WITHIN PHASE 3 STEP
2 AS IDENTIFIED IN TRAFFIC CONTROL
PLANS.

REMOVE 60 LF
EXISTING 15" SANITARY
SEWER MAIN

PROP MH-A6 72"
(SPEC 850)
STA. 17+53 LINE "A"
N=13,715,941.20
E=2,115,518.89

TRENCH EXCAVATION SAFETY PROTECTION

TRENCH EXCAVATION PROTECTION SHALL BE ACCOMPLISHED
AS REQUIRED BY THE PROVISIONS OF PART 1926,
SUBPART P-EXCAVATION, TRENCHING, AND SHORING OF
THE OCCUPATIONAL SAFETY AND HEALTH'S STANDARDS
AND INTERPRETATIONS. THE CONTRACTOR/FOREMAN SHALL
ALSO COMPLY WITH 550, TRENCH EXCAVATION PROTECTION,
SAN ANTONIO WATER SYSTEM SPECIFICATIONS FOR WATER
AND SEWER CONSTRUCTION.

PROP 6" SEWER
LATERAL
STA. 19+49
10 LF

PROP 6" SEWER
LATERAL
STA. 20+28
12 LF

PROP MH-A8 72"
(SPEC 850)
STA. 20+43 LINE "A"
N=13,716,022.58
E=2,115,244.88

PROP 6" SEWER LATERAL
STA. 18+40
14 LF

PROP 24" RCP
STA. 18+91
15 LF

PROP MH-A7 72"
(SPEC 850)
STA. 18+84 LINE "A"
N=13,716,001.57
E=2,115,402.79

PROP SEELING CHANNEL
IMPROVEMENTS

ABANDON EXISTING SS MH
NO SEPARATE PAY ITEM

LINE "A"

Item #	Description	Unit	Qty
550	Trench Excavation Safety Protection	LF	303
848	18" PVC Sanitary Sewer (6' - 10')	LF	10
848	30" Fiberglass Reinforced Gravity Sanitary Sewer (14' - 18')	LF	293
850	Sanitary Sewer Structure (72")	EA	3
852	48" Manhole Sanitary Sewer Manhole (0' - 6' deep)	EA	1
852	48" Manhole Extra Depth	VF	4
854	Sanitary Sewer Laterals	LF	51
854	Sanitary Sewer Cleanout	EA	4
862	Abandonment of Sanitary Sewer Main	LF	290
866	18" - 21" Sewer Main Television Inspection	LF	10
866	24" - 30" Sewer Main Television Inspection	LF	293

CPS AND TELEPHONE COMPANY NOTES

CALL THE TEXAS WIDE STATE ONE CALL LOCATOR AT
1-800-545-6005 48 HOURS BEFORE ANY CONSTRUCTION.

DUE TO FEDERAL REGULATION TITLE 49, PART 192.181,
CPS MUST MAINTAIN ACCESS TO GAS VALVES AT ALL
TIMES. THE CONTRACTOR/FOREMAN MUST PROTECT AND
WORK AROUND ANY GAS VALVES THAT ARE IN THE
PROJECT AREA.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR
PROTECTING CPS OVERHEAD AND UNDERGROUND ELECTRIC
FACILITIES IF ADJACENT TO WORK AREA.

THE EXISTENCE AND LOCATION OF UNDERGROUND CABLE
INDICATED ON THE PLANS ARE TAKEN FROM THE BEST
RECORDS AVAILABLE AND ARE NOT GUARANTEED TO BE
ACCURATE. CONTRACTOR/FOREMAN IS RESPONSIBLE FOR
MAINTAINING AND PROTECTING THE INTEGRITY OF POWER
POLES AND UNDERGROUND ELECTRIC CABLES DURING
(NSPI) CONSTRUCTION. 48 HOURS BEFORE BEGINNING ANY
EXCAVATION. CALL THE TEXAS WIDE STATE ONE CALL
LOCATOR AT 1-800-545-6005. CONTRACTOR TO PROTECT
AND SUPPORT TELEPHONE COMPANY PLANT DURING
CONSTRUCTION.

LEGEND

PROPOSED 30" SANITARY SEWER	
PROPOSED 18"-21" SANITARY SEWER	
PROPOSED 8"-15" SANITARY SEWER	
PROPOSED MANHOLE	
EXISTING SANITARY SEWER MAIN TO BE REMOVED	
PROPOSED SANITARY SEWER LATERAL CONNECTION	
PROPOSED R.O.W. LINE	
EXISTING PROPERTY & R.O.W. LINE	

0 20 40
HORIZ: 1"=40'

SCALE:
HORIZ: 1"=40'
VERT: 1"=10'



NO	DATE	DESCRIPTION	DWGCHK
1	8/23/12	REVISED SANITARY SEWER STRUCTURE FROM 60" TO 72"	

AECOM

AECOM TECHNICAL SERVICES, INC.
6800 PARK TEN BLVD., SUITE 180 SOUTH
SAN ANTONIO, TEXAS 78213
WWW.AECOM.COM
TBP REG. NO. F-3580



**SAN ANTONIO
WATER SYSTEM
SANITARY SEWER
REPLACEMENT PROJECT
PROP. JOB NO. 10-5510**

CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

SEELING CHANNEL PHASE 1

**SANITARY SEWER
PLAN AND PROFILE
LINE "A"**

STA 17+50 TO STA 20+53

8 OF 15

BID SUBMITTAL	PROJECT NO.: 60184822	DATE: JULY 2012
DRWN. BY: M.G.	DSGN. BY: T.W.	CHKD. BY: CC

LAST MODIFIED: Aug 23, 2012 - 11:54am BY: USDR: garmen
DATE LOCATED: 8/10/2012 Seeling Channel Replacement Project
FILE: 10-5510 - Sanitary Sewer Replacement



CITY OF SAN ANTONIO

CAPITAL IMPROVEMENTS MANAGEMENT SERVICES (CIMS DEPARTMENT)

PROJECT: SEELING CHANNEL IMPROVEMENTS - PHASE I

ADDENDUM NO. 4 – Acknowledgement Form

RECEIPT OF ADDENDUM NUMBER(S) 4 IS HEREBY ACKNOWLEDGED FOR PLANS AND SPECIFICATIONS FOR CONSTRUCTION OF Seeling Channel Improvements - Phase I FOR WHICH BIDS WILL BE OPENED ON SEPTEMBER 11, 2012

THIS ACKNOWLEDGEMENT MUST BE SIGNED AND RETURNED WITH THE BID PACKAGE.

Company Name: _____

Address: _____

City/State/Zip Code: _____

Date: _____

Signature

Print Name/Title